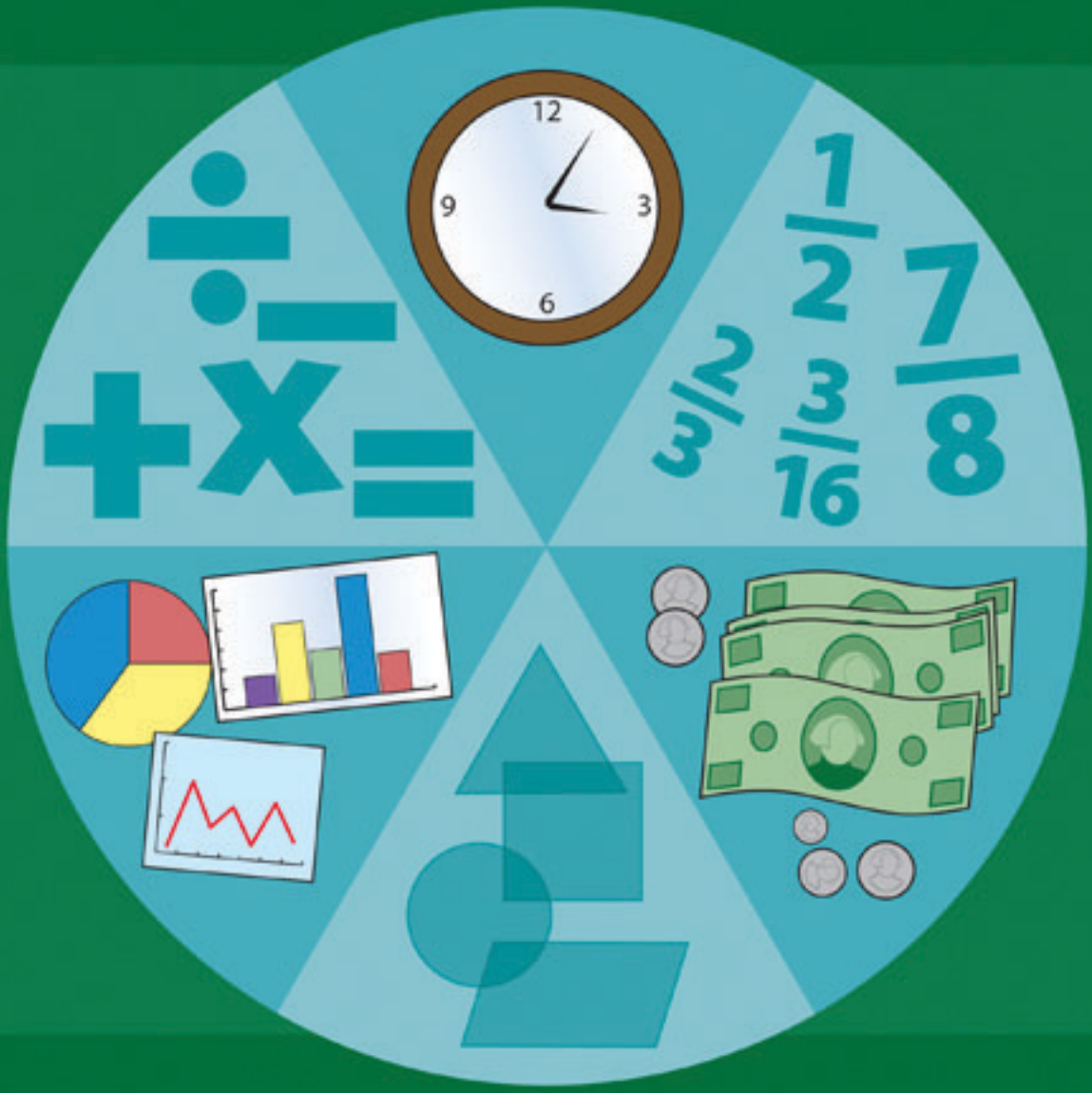
GOOD YEAR BOOKS
Grades 3–4

Aligns to National Council of Teachers of Mathematics Standards

MATH CYCLES

Problems and Quizzes that Strengthen Math Skills



Hy Kim

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Problems and Quizzes that Strengthen Math Skills

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GOOD YEAR BOOKS

GDY498 v1.11

Educational Standards

Math Cycles contains problems and activities that reinforce and develop concepts and skills as defined by the National Council of Teachers of Mathematics as appropriate for students in grades 3 and 4. These include the Content and Process Strands: Number and Operations, Algebra, Geometry, Measurement, Data Analysis and Probability, Problem Solving, Reasoning and Proof, Communication, Connections, and Representation. See www.goodyearbooks.com for information on how lessons correlate to specific standards.

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Introduction

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What Is *Math Cycles*?

Math Cycles presents third- and fourth-grade math concepts and skills in a spiral fashion so that those concepts and skills are introduced and then reinforced and expanded as a student moves systematically through the lessons, or "cycles." Basic concepts and skills are introduced at the earlier stages of the spiral, or the earliest cycles. As students work through the problems in each cycle, they find their mastery of the concepts and skills expand, becoming wider and deeper as the spiral runs through the book's sixty cycles. Therefore, the first thirty cycles are appropriate for third grade, and the second thirty cycles are appropriate for fourth grade.

Math Cycles and the Mathematics Standards

NCTM Standards

In its publication *Principles and Standards for School Mathematics*, the National Council of Teachers of Mathematics has defined five Content Strands for Grades 3 and 4: Number and Operations; Algebra (Patterns and Functions); Geometry; Measurement; and Data Analysis and Probability. *Math Cycles* breaks the five strands into twelve instructional "clusters" of math problems. All twelve clusters are represented in every two-page cycle. The standards and benchmarks for the twelve clusters are shown on the next two pages, in the same arrangement as they would appear in every cycle.

In addition, the twelve clusters are infused with elements of the NCTM's five Process strands: Problem Solving, Reasoning and Proof, Communication, Connections, and Representation.

Introduction: The 12 Clusters of Each Cycle in *Math Cycles*

1

Computation

- Develop fluency in number facts
- Use mental math
- Develop fluency in computation of whole numbers (+, −, ×, and ÷).

2

Meaning of Number Operations

- Solve word problems using four operations
- Identify information needed to solve a problem
- Determine operations in multi-step problems
- Use problem-solving strategies

3

Data and Graphs

- Data-collecting methods for an investigation
- Represent data using tables and graphs: line plots, bar graphs, and line graphs
- Differentiate in representing categorical and numerical data

4

Patterns and Functions

- Describe the rules for a pattern sequence
- Create a pattern using specified units
- Create a function table
- Use algebraic symbols
- Use mathematical models to represent quantitative relationships

5

Measurement

- Understand such attributes as length, area, weight, and size of angle
- Become familiar with standard units
- Carry out simple unit conversion
- Estimate in measurement
- Develop and use formulas to find area of rectangles, triangles, and parallelograms

6

Place Value

- Name value of a digit in a numeral
- Read/write numerals in expanded form
- Understand numbers, ways of representing numbers, and the number system
- Identify place values to millions and thousandths

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7

Geometry

- Analyze the properties of two- and three-dimensional geometric shapes
- Identify spatial relationship I using coordinated geometry
- Apply transformations and use symmetry to analyze mathematic situation
- Use visualization to solve problems

8

Fractions

- See fractions as parts of whole, parts of a set, location on the number line, and as division of whole numbers
- Compare fractions
- Add and subtract fractions
- Use equivalent form, decimals, and percent

9

Money

- Solve problems in buying situations
- Interpret charts with money
- Compute with money using four operations
- Estimate amount in problem settings
- Express money value using $ and ¢

10

Time and Properties of Number Operations

- Read clocks
- Understand elapsed time
- Use properties of operations: family facts, prime and composite numbers, factors and multiples, order of operation and distributive properties

11

Estimation

- Round a number to nearest certain place value
- Estimate by front-end method
- Estimate by rounding
- Develop strategies for estimating in measurement
- Use mental computation and estimation

12

Probability

- Describe events as likely or unlikely and discuss the degree of likelihood using such words as certain, equally likely, and impossible
- Predict the probability of outcomes of simple experiments
- Understand that the likelihood of an event can be represented by a number from 0 to 1

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Introduction

State Standards

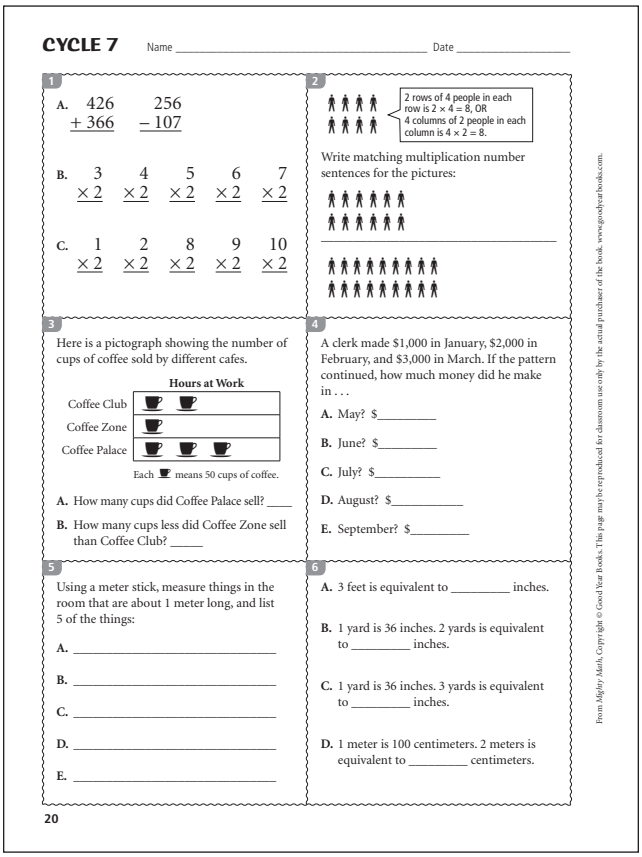
Math Cycles also aligns to many states' math standards. While there are some differences among the various states' academic content standards for third- and fourth-grade math, almost all of those standards are based on the NCTM's standards for grades 3–5. For example, some states place the concept of average or mean in third grade; other states place it in fourth grade, and still others place it in fifth grade. In this book, the concept of average is introduced in fourth grade in simple addition and division problems. In addition, the number of items in each cycle that correspond to a particular Content Strand approximates the emphasis placed on each strand by most states.

Using the Cycles with Your Current Math Program

As mentioned earlier, cycles are arranged into twelve boxes split evenly over two pages. Each cycle starts with a box of computation problems and ends with a box of probability problems. Below is a typical two-page cycle.

An Answer Key for the cycles starts on page 160. Students can use the Progression Chart: Cycles on page 204 to check their work against the Answer Key and record the results in the chart.

Note that even though higher-level concepts, such as fractions and probability, are introduced later in the school year, students can handle



CYCLE 7 Name _____ Date _____

1

A. 426 + 366 = ____ 256 − 107 = ____

B. 3 ×2 = ____ 4 ×2 = ____ 5 ×2 = ____ 6 ×2 = ____ 7 ×2 = ____

C. 1 ×2 = ____ 2 ×2 = ____ 8 ×2 = ____ 9 ×2 = ____ 10 ×2 = ____

2

2 rows of 4 people in each row is 2 × 4 = 8, OR 4 columns of 2 people in each column is 4 × 2 = 8.

Write matching multiplication number sentences for the pictures:

_____

3

Here is a pictograph showing the number of cups of coffee sold by different cafes.

Hours at Work

Coffee Club	☕ ☕
Coffee Zone	☕
Coffee Palace	☕ ☕ ☕

Each ☕ means 50 cups of coffee.

A. How many cups did Coffee Palace sell? ____

B. How many cups less did Coffee Zone sell than Coffee Club? ____

4

A clerk made $1,000 in January, $2,000 in February, and $3,000 in March. If the pattern continued, how much money did he make in . . .

A. May? $_____

B. June? $_____

C. July? $_____

D. August? $_____

E. September? $_____

5

Using a meter stick, measure things in the room that are about 1 meter long, and list 5 of the things:

A. _____

B. _____

C. _____

D. _____

E. _____

6

A. 3 feet is equivalent to _____ inches.

B. 1 yard is 36 inches. 2 yards is equivalent to _____ inches.

C. 1 yard is 36 inches. 3 yards is equivalent to _____ inches.

D. 1 meter is 100 centimeters. 2 meters is equivalent to _____ centimeters.

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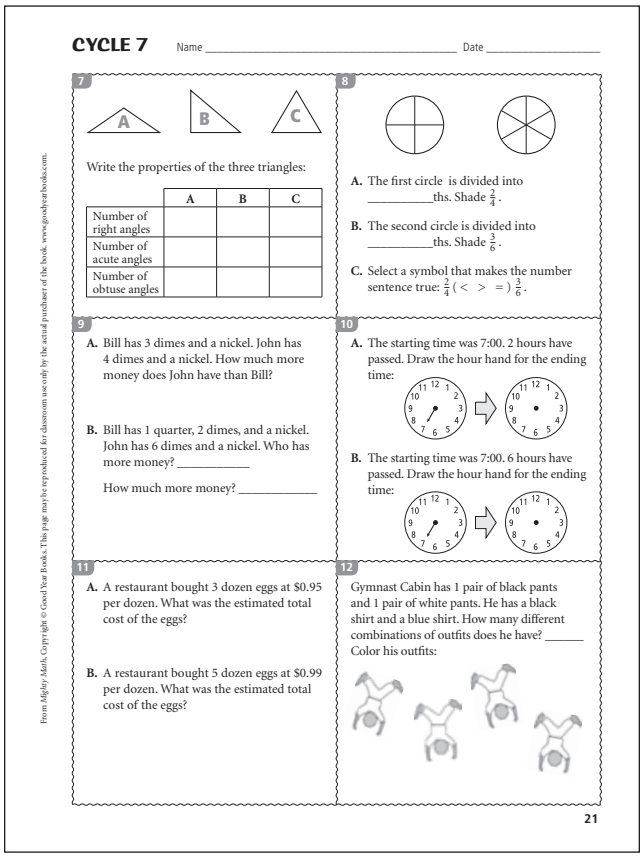
20



CYCLE 7 Name _____ Date _____

7

A B C

Write the properties of the three triangles:

	A	B	C
Number of right angles			
Number of acute angles			
Number of obtuse angles			

8

A. The first circle is divided into _____ths. Shade $\frac{2}{4}$.

B. The second circle is divided into _____ths. Shade $\frac{3}{6}$.

C. Select a symbol that makes the number sentence true: $\frac{2}{4}$ (< > =) $\frac{3}{6}$.

9

A. Bill has 3 dimes and a nickel. John has 4 dimes and a nickel. How much more money does John have than Bill?

B. Bill has 1 quarter, 2 dimes, and a nickel. John has 6 dimes and a nickel. Who has more money? _____

How much more money? _____

10

A. The starting time was 7:00. 2 hours have passed. Draw the hour hand for the ending time:

B. The starting time was 7:00. 6 hours have passed. Draw the hour hand for the ending time:

11

A. A restaurant bought 3 dozen eggs at $0.95 per dozen. What was the estimated total cost of the eggs?

B. A restaurant bought 5 dozen eggs at $0.99 per dozen. What was the estimated total cost of the eggs?

12

Gymnast Cabin has 1 pair of black pants and 1 pair of white pants. He has a black shirt and a blue shirt. How many different combinations of outfits does he have? _____ Color his outfits:

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21

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those problems in the early cycles. The key is that problems in earlier clusters are presented as an introduction to each concept and are based on common sense and earlier grade-level experiences.

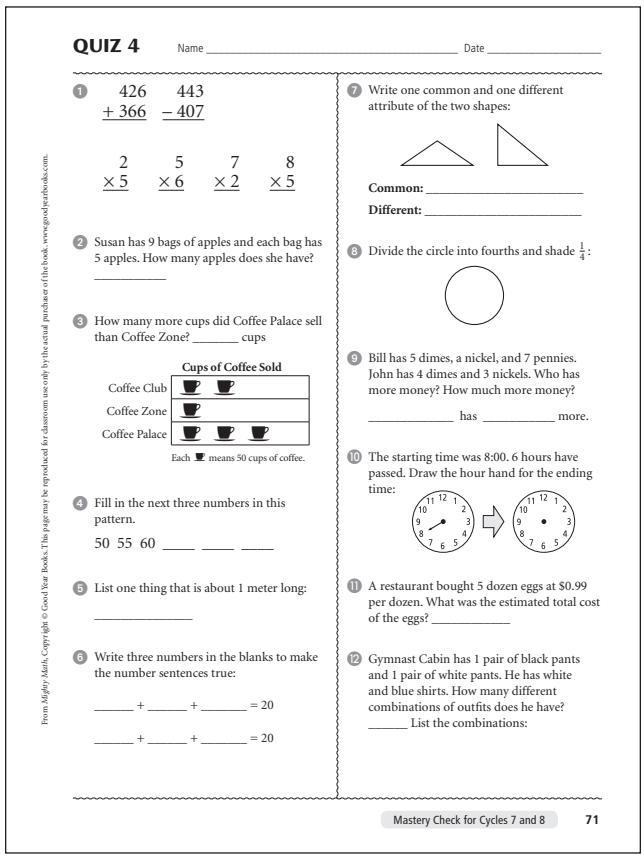
The beginning of a school year is a good time to begin using the cycles, but any time during the school year works. The problems are aligned with most textbooks. For consistent coverage of the cycles, it is a good idea to assign one page, or half a cycle, as homework for the first four days of the school week. Send the answer key to parents so they can help their children at home.

By assigning homework and encouraging parents to help their children, you expand the amount of time students spend learning the concepts and the time they spend reinforcing those concepts. Even when you can't cover more advanced concepts as thoroughly as you'd like—perhaps because you're spending more time on computation with some of your students—the cycles offer all students continued exposure to and practice in grade-appropriate math concepts.

If you use the cycles as homework assignments (one page per day), one grade's thirty cycles take about four months. You can also use the book as an intensive review for a test, such as a state-mandated test, for short periods of four to seven weeks. At a rate of one cycle per day, a fourth-grade teacher can review the fourth-grade cycles in two to three weeks.

Assessing Student Progress

Math Cycles contains thirty quizzes, which are meant to be administered after every even-numbered cycle. Below is a typical one-page quiz.



QUIZ 4 Name _____ Date _____

1. 426 + 366 = ____ ; 443 − 407 = ____

2 × 5 = ____ ; 5 × 6 = ____ ; 7 × 2 = ____ ; 8 × 5 = ____

2. Susan has 9 bags of apples and each bag has 5 apples. How many apples does she have? _____

3. How many more cups did Coffee Palace sell than Coffee Zone? _____ cups

Cups of Coffee Sold

Coffee Club	☕ ☕
Coffee Zone	☕
Coffee Palace	☕ ☕ ☕

Each ☕ means 50 cups of coffee.

4. Fill in the next three numbers in this pattern.
50 55 60 ____ ____ ____

5. List one thing that is about 1 meter long: _____

6. Write three numbers in the blanks to make the number sentences true:
_____ + _____ + _____ = 20
_____ + _____ + _____ = 20

7. Write one common and one different attribute of the two shapes:

Common: _____
Different: _____

8. Divide the circle into fourths and shade $\frac{1}{4}$:

9. Bill has 5 dimes, a nickel, and 7 pennies. John has 4 dimes and 3 nickels. Who has more money? How much more money?
_____ has _____ more.

10. The starting time was 8:00. 6 hours have passed. Draw the hour hand for the ending time:

11. A restaurant bought 5 dozen eggs at $0.99 per dozen. What was the estimated total cost of the eggs? _____

12. Gymnast Cabin has 1 pair of black pants and 1 pair of white pants. He has white and blue shirts. How many different combinations of outfits does he have? _____ List the combinations:

Mastery Check for Cycles 7 and 8 71

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If you work through two cycles per week, you can administer the quiz on the last day of every week to determine students' mastery of the concepts. For example, your first week of using *Math Cycles* would look like this:

Monday: Cycle 1, Problems 1–6

Tuesday: Cycle 1, Problems 7–12

Wednesday: Cycle 2, Problems 1–6

Thursday: Cycle 2, Problems 7–12

Friday: Quiz 1

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An Answer Key for the quizzes starts on page 205. After students take a quiz, use the Progression Chart: Quizzes on page 220 to record and analyze their quiz results over a period of time and find their strengths and weaknesses among the twelve clusters. You can then offer remedial instruction in particular clusters based on your findings. Reviewing all of the problems in sequence is good remedial instruction for a cluster.

Transitioning from Grade 3 Cycles to Grade 4 Cycles

The transition from the third-grade cycles to the fourth-grade cycles is a continued step upward, with minor changes to the content of the problems. Fourth-grade teachers who want to begin with the fourth-grade materials will find that the multiplication and division number facts are systematically reintroduced so students can review and achieve fluency and mastery, if they have not yet done so. The only major difference between each grade's cycles is in Cluster 10. In Grade 3's cycles, Cluster 10 is Time. In Grade 4, this cluster becomes Properties of Number Operations, which deals with the relationships of number operations and number theories.

Using *Math Cycles* for Test Preparation

Math Cycles is an excellent source of review and preparation for any standardized test for Grades 3 and 4 because the cycles cover all areas of third- and fourth-grade math and the problems are based on test items from a number of state math tests. Even when class time is short, the cycles offer students exposure to and reinforcement of all areas of math for their grade level. Use the quizzes as a diagnostic tool to discover students' strengths and weaknesses in math concepts.

In addition, but just as important, you will find the problems in *Math Cycles* a great help when you have to make up math tests for your students. The sheer number of problems allow you the flexibility to adapt items for your students' needs.

As you work through the cycles with your students, *Math Cycles* will become an invaluable part of your math curriculum. With practice and reinforcement, your students will make these grade-appropriate math concepts their own.

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Grade 3

Cycles 1 to 30 ..... page 8

Quizzes 1 to 15 ..... page 68

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CYCLE 1

Name _____ Date _____

1

A.

$$\begin{array}{r} 6 \\ +\ 6 \end{array} \qquad \begin{array}{r} 60 \\ +\ 60 \end{array} \qquad \begin{array}{r} 600 \\ +\ 600 \end{array}$$

B.

$$\begin{array}{r} 12 \\ -\ 6 \end{array} \qquad \begin{array}{r} 120 \\ -\ 60 \end{array} \qquad \begin{array}{r} 1{,}200 \\ -\ 600 \end{array}$$

C.

$$\begin{array}{r} 7 \\ +\ 9 \end{array} \qquad \begin{array}{r} 70 \\ +\ 90 \end{array} \qquad \begin{array}{r} 1{,}300 \\ -\ 900 \end{array}$$

2

A. A company has 4 trucks. Each truck has 18 wheels. How many wheels is this in all?

B. A company has 6 trucks. Each truck has 18 wheels. How many wheels is this in all?

C. A company has 8 trucks. Each truck has 18 wheels. How many wheels is this in all?

3

The time line shows part of Ming's life.

A. How old was Ming when he came to the United States? _____

B. How old was Ming when he moved to Ohio? _____

4

A. Draw the next 3 shapes in the pattern.

△○○△○○ ____ ____ ____

B. Draw the next 3 shapes in the pattern.

△▽△○△▽ ____ ____ ____

C. Draw the next 3 shapes in the pattern.

△△▽△△ ____ ____ ____

5

Using a ruler, draw the following line segments starting at the ⋆ :

A. 1 inch

⋆

B. 2 inches

⋆

C. 3 inches

⋆

D. $1\frac{1}{2}$ inches

⋆

6

The number 30 is equivalent to 20 + 10, 40 – 10, and 5 × 6.

A. Write 4 equivalent forms for 12:

_____ _____

_____ _____

B. Write 4 equivalent forms for 36:

_____ _____

_____ _____

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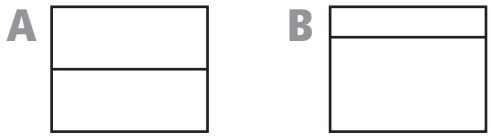
7

Write the properties and names of shapes A and B:

	A	B
Number of sides		
Number of angles		
Name		

8



Which one of the rectangles is not divided into halves? _____

Explain your choice:

9

A. Jim has 3 dimes and 2 nickels. Does he have enough money to buy a candy bar for 35¢? _____ Explain:

B. Sue has 1 quarter, 3 dimes, and 2 nickels. Does she have enough money to buy a candy bar for 85¢? _____ Explain:

10

Here is part of a calendar.

June

Sun	Mon	Tues	Wed	Thur	Fri	Sat
		1	2	3	4	5
6	7	8				

What will be the date on the third Friday in June?

11

A. Which is a reasonable estimate for the sum of 312 and 108?

a. 400
b. 500
c. 600

B. Which is a reasonable estimate for the sum of 390 and 188?

a. 400
b. 500
c. 600

12

You can make a sundae with only one flavor of ice cream and one topping.

Flavors	Toppings
chocolate	peanuts
vanilla	cherry

How many different sundaes can you make? _____ List them:

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CYCLE 2

Name _____ Date _____

1

A.

8	80	800
+ 6	+ 60	+ 600

B.

12	120	1,200
− 9	− 90	− 900

C.

5	50	1,300
+ 9	+90	− 700

2

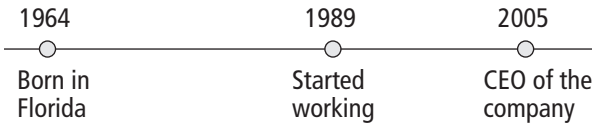
A. Mary picked 6 apples from a tree and Susan picked 9 apples from a tree. How many more apples did Susan pick than Mary? _____ Show your work:

How many apples did Mary and Susan pick together?

B. Susan packed 15 apples equally into 3 bags. How many apples are in each bag?

3

The time line shows part of Jim's father's life.



A. How old was Jim's father when he started working?

B. After Jim's father started working, how many years did it take him to become CEO of the company?

4

These shapes are arranged in a pattern:

OΔOOΔΔOOOΔΔΔOOOO

A. Which set of shapes is arranged in the same pattern?

a. ♣ ♠ ♣ ♠ ♣ ♠ ♣ ♠ ♣ ♠

b. ♠ ♣ ♠ ♠ ♣ ♣ ♠ ♠ ♠

c. ♣ ♠ ♣ ♣ ♠ ♣ ♣ ♣ ♠

B. Draw the next 3 shapes in the pattern.

ΔOΔOOΔOOOΔO ___ ___ ___

5

Using a ruler, draw the following line segments starting at the ✶ :

A. $1\frac{1}{2}$ inch

✶

B. $2\frac{1}{4}$ inches

✶

C. $2\frac{3}{4}$ inches

✶

6

The number 30 is equivalent to 20 + 10, 40 – 10, and 5 × 6.

A. Write 4 equivalent forms for 35:

_____ _____

_____ _____

B. Write 4 equivalent forms for 18:

_____ _____

_____ _____

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CYCLE 2

Name _____ Date _____

7

Write the properties and names of shapes A and B:

	A	B
Number of sides		
Number of pairs of parallel lines		
Name		

8

Which one of the circles is not divided into fourths? _____

Explain your choice:

9

A. Jim has 4 dimes, 2 nickels, and 3 pennies. How much money does he have?

Jim has _____¢

B. Sue has 1 quarter, 1 dime, 2 nickels, and 6 pennies. Does she have enough money to buy a candy bar for 75¢? _____

Explain:

10

June

Sun	Mon	Tues	Wed	Thur	Fri	Sat
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

How many days was it from Thursday the 10th until Friday the 18th?

11

A. Which is a reasonable estimate for the difference of 312 and 108?

a. 200

b. 300

c. 400

B. Which is a reasonable estimate for the difference of 310 and 188?

a. 100

b. 200

c. 300

12

You can make a sandwich with one kind of bread, one meat, and one vegetable.

Breads	Meats	Vegetables
white	chicken	lettuce
wheat	beef	tomato

How many different sandwiches can you make?

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CYCLE 3

Name _____ Date _____

1

A.

9	93	935
+ 6	+ 64	+ 600

B.

14	140	1,400
− 8	− 80	− 800

C.

4	46	1,300
+ 9	+ 94	− 500

2

A. Twelve children went to the beach. Some of them went swimming and some played in the sand. There were twice as many children playing in the sand as swimming.

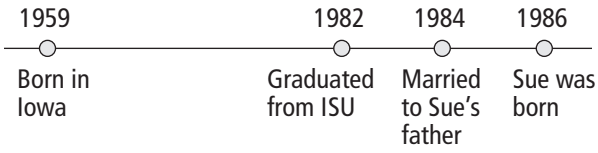
Number of swimmers _____

Number in the sand _____

B. A company has 5 trucks. Each truck has 18 wheels. How many wheels is this in all?

3

The time line shows part of Sue's mom's life.

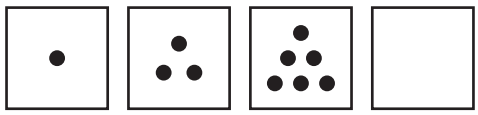


A. How old was Sue's mom when she graduated from Iowa State University?

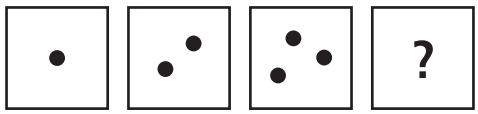
B. How old was Sue's mom when Sue was born?

4

A. Sue has the following dot card pattern. Draw the fourth card:



B. According to the pattern, how many dots should be in the last box?



_____ dots

5

Using a ruler, measure things in the room that are about 12 inches long, and list 5 of the things:

A. _____

B. _____

C. _____

D. _____

E. _____

6

The number 30 is equivalent to 20 + 10, 40 – 10, and 5 × 6.

A. Write 4 equivalent forms for 9:

_____ _____

_____ _____

B. Write 4 equivalent forms for 100:

_____ _____

_____ _____

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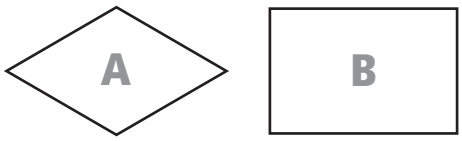
CYCLE 3

Name _____ Date _____

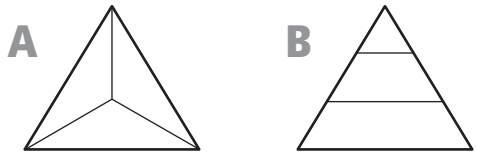
7



Write the properties and names of shapes A and B:

	A	B
Number of right angles		
Number of acute angles		
Number of pairs of parallel lines		
Name		

8



Which triangle is not divided into thirds?

Explain your answer:

9

A. Mary has 2 quarters and 3 dimes. Which of the following items can she purchase?

- **a.** a candy bar for $1.00
- **b.** a gumball for 50¢
- **c.** a pencil for 10¢
- **d.** an eraser for 75¢

B. Jim bought a candy bar for 75¢. He paid with a dollar bill. How much change did he receive?

- **a.** 20¢
- **b.** 25¢
- **c.** 30¢
- **d.** 50¢

10

December

Sun	Mon	Tues	Wed	Thur	Fri	Sat
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

A. If today is December 10th, then how many more days is it until New Year's Eve?

B. If today is December 8th, then how many more days is it until Christmas Day?

11

A. Which is a reasonable estimate for the sum of 512 and 308?

- **a.** 800
- **b.** 900
- **c.** 1,000

B. Which is reasonable estimate for the sum of 590 and 188?

- **a.** 700
- **b.** 800
- **c.** 900

12

One kind of bread, one meat, and one vegetable is allowed for your sandwich.

Breads	Meats	Vegetables
white	chicken	lettuce
rye	turkey	tomato

How many different sandwiches can you make?

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CYCLE 4

Name _____ Date _____

1

A.

9	99	999
+ 4	+ 44	+ 444

B.

12	320	3,200
− 8	− 80	− 800

C.

2	22	5,300
+ 9	+ 99	− 900

2

A. Susan has 6 bags of apples and each bag contains 10 apples. How many apples does Susan have?

B. Susan packed 30 apples equally into 5 bags. How many apples are in each bag?

C. Three boys want to share 18 apples equally. How many apples will each boy get?

3

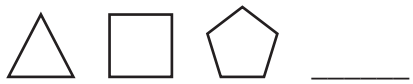
The time line shows part of Tim's father's life:

A. How old was Tim's father when Tim was born?

B. How old was Tim's father when he married Tim's mom?

4

A. What is the next shape in this pattern?



_____

Select an answer:

B. What are the next three numbers in this sequence?

4 8 12 16 ____ ____ ____

5

Using a ruler, measure things in the room that are about 1 yard long, and list 5 of the things:

A. _____

B. _____

C. _____

D. _____

E. _____

6

The number 30 is equivalent to 20 + 10, 40 – 10, and 5 × 6.

A. Write 4 equivalent forms for 99:

_____ _____

_____ _____

B. Write 4 equivalent forms for 15:

_____ _____

_____ _____

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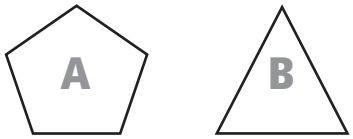
 Name _____ Date _____

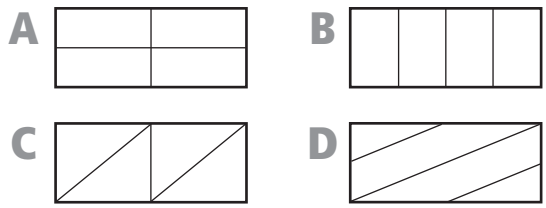
7



Write the properties and names of shapes A and B:

	A	B
Number of sides		
Number of angles		
Name		

8

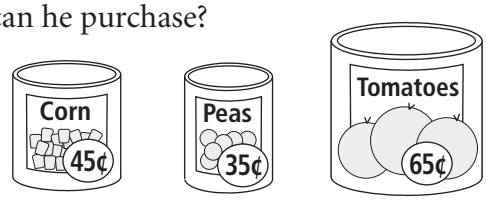


Which one of the rectangles is not divided into fourths? _____

Explain your answer:

9

A. John has 2 quarters. Which of these items can he purchase?

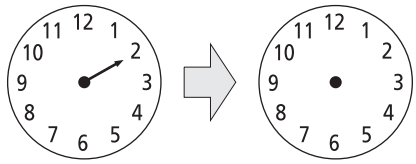


B. Frank has 15¢. In order to purchase this can of soda, what more does he need?

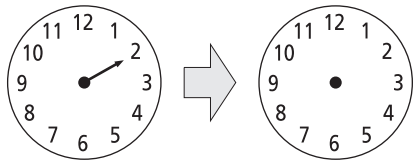
a. 3 pennies
b. 5 pennies
c. a nickel
d. a dime

10

A. The starting time was 2:00. 2 hours have passed. Draw the hour hand for the ending time:



B. The starting time was 2:00. 4 hours have passed. Draw the hour hand for the ending time:



11

A. Which is a reasonable estimate for the difference of 712 and 108?

a. 500
b. 600
c. 700

B. Which is a reasonable estimate for the difference of 810 and 198?

a. 500
b. 600
c. 700

12

A new car comes with options of 4 different colors outside—red, silver, black, and green—and 2 different colors inside—gray and burgundy. List all of the combinations of colors, inside and outside, of the new car:

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CYCLE 5

Name _____ Date _____

1

A.

7	73	735
+ 7	+ 74	+ 700

B.

12	120	1,200
− 7	− 70	− 700

C.

5	56	1,200
+ 9	+ 94	− 500

2

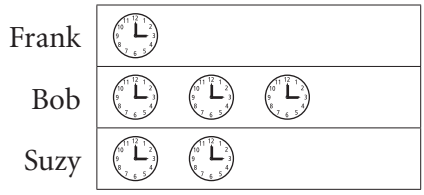
A. Chang's family made 60 cookies for a party. There were 26 cookies left at the end of the party. How many cookies were eaten during the party?

B. To get a free soccer ball, Sam needs 70 points. He has 28 points. How many more points does he need?

3

Here is a pictograph that shows the number of hours worked by employees at the pizza shop today.

Hours at Work



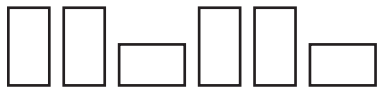
Each 🕒 equals 3 hours.

A. Who worked three hours today? _____

B. How many more hours did Bob work then Suzy? _____

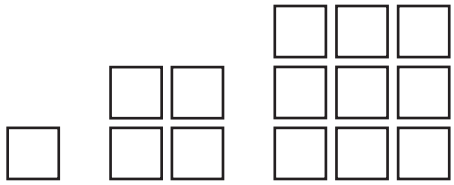
4

A. Draw the next three shapes in this pattern.



___ ___ ___

B. Examine the pattern.



How many squares will be in the fourth picture?

5

Using a ruler, draw the following line segments starting at the ✶ :

A. 1 cm
✶

B. 5 cm
✶

C. $3\frac{1}{2}$ cm
✶

D. $4\frac{1}{2}$ cm
✶

6

The number 30 is equivalent to 20 + 10, 40 – 10, and 5 × 6.

A. Write 4 equivalent forms for 60:

_____ _____

_____ _____

B. Write 4 equivalent forms for 200:

_____ _____

_____ _____

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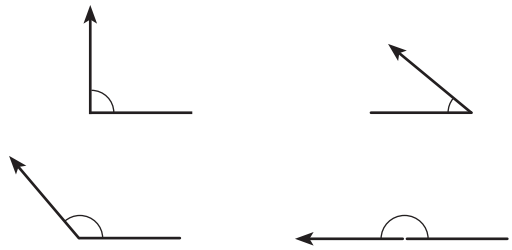
CYCLE 5

Name _____ Date _____

7



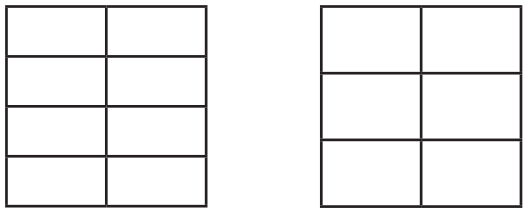
Write R next to the right angles in the above picture.

Write O next to the obtuse angles.

Write A next to the acute angles.

Write S next to the straight angles.

8



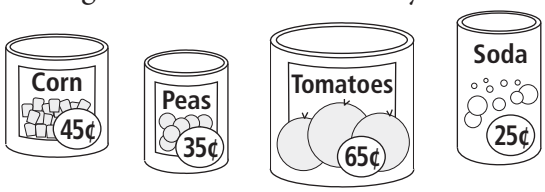
A. The first square is divided into _____ths. Shade $\frac{1}{8}$.

B. The second square is divided into _____ths. Shade $\frac{1}{6}$.

C. Select a symbol to make the number sentence true: $\frac{1}{8}$ (< > =) $\frac{1}{6}$

9

A. Jim bought one of these items. He gave the clerk a dollar and received 65¢ for change. Which item did he buy?



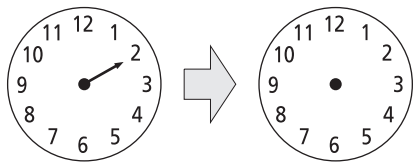
B. Bill bought some candy for $0.95. He received 5¢ for change. How much did he pay with?

a. a dime **c.** $1

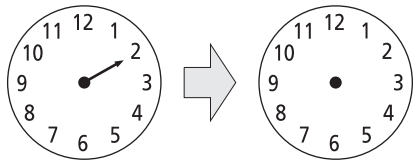
b. a nickel **d.** $10

10

A. The starting time was 2:00. 5 hours have passed. Draw the hour hand for the ending time:



B. The starting time was 2:00. 8 hours have passed. Draw the hour hand for the ending time:



11

A. Which is a reasonable estimate for the sum of $5.90 and $4.20?

a. $8.00

b. $9.00

c. $10.00

B. Which is a reasonable estimate for the sum of $5.87 and $2.10?

a. $7.00

b. $8.00

c. $9.00

12

At a pizza house, you can order a pizza with two different toppings of your choice. The toppings are pepperoni, sausage, peppers, and mushrooms.

How many different pizzas can you order? _____ List all of the combinations:

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CYCLE 6

Name _____ Date _____

1

A.

9	99	999
+ 6	+ 66	+ 666

B.

10	300	3,000
− 8	− 80	− 800

C.

9	99	5,000
+ 9	+ 99	− 900

2

A. Fifteen children went to the beach. Some of them went swimming and some played in the sand. There were twice as many children playing in the sand as swimming.

Number of swimmers _____

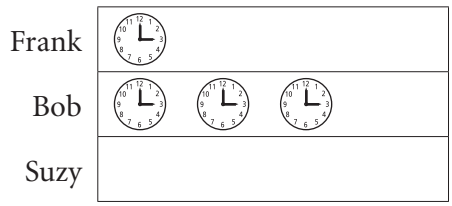
Number in the sand _____

B. Susan packed 40 apples equally into 5 bags. How many apples are in each bag?

3

Here is a pictograph. Suzy worked 6 hours but forgot to fill in the chart. Complete it for her.

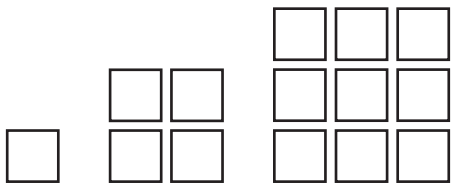
Hours at Work



Each 🕒 equals 3 hours.

4

Examine the pattern.



A. How many squares will be in the fifth picture?

B. How many squares will be in the sixth picture?

5

Using a ruler, measure things in the room that are about 10 cm long, and list 5 of the things:

A. _____

B. _____

C. _____

D. _____

E. _____

6

A. Jim measured a dinosaur tooth and found that it was 1 foot long. This is the same as:

a. 6 inches

b. 12 inches

c. 15 inches

d. 25 inches

B. 2 feet is equivalent to _____inches.

C. 1 yard is 36 inches. 2 yards is equivalent to _____ inches.

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CYCLE 6

Name _____ Date _____

7

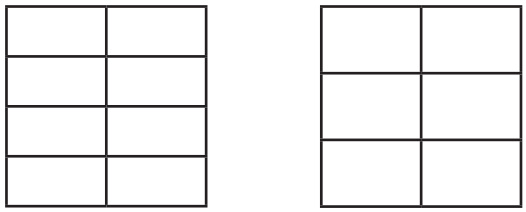
Use the lines given to construct the angle that is indicated:

A. A right angle: _____

B. An acute angle: _____

C. An obtuse angle: _____

8



A. The first square is divided into _____ths. Shade $\frac{3}{8}$.

B. The second square is divided into _____ths. Shade $\frac{3}{6}$.

C. Select a symbol to make the number sentence true: $\frac{3}{8}$ (< > =) $\frac{3}{6}$.

9

A. Which of the following makes 25 cents?

a. 2 dimes

b. 2 dimes and 2 nickels

c. 2 dimes and 5 pennies

d. 6 nickels

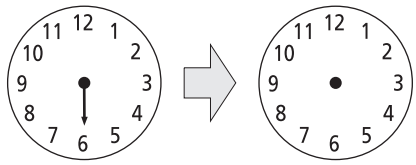
B. Bob owes you 10 dollars. If he gives you $5.50, then how much more does he owe you?

a. $5.50 **c.** $5.00

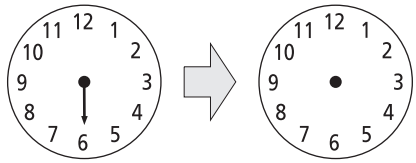
b. $4.50 **d.** $3.50

10

A. The starting time was 6:00. 2 hours have passed. Draw the hour hand on the clock:



B. The starting time was 6:00. 7 hours have passed. Draw the hour hand on the clock:



11

A. Which is a reasonable estimate for the difference of $6.25 and $2.40?

a. $3.00

b. $4.00

c. $5.00

B. Which is a reasonable estimate for the difference of $8.40 and $ 3.90?

a. $3.00

b. $4.00

c. $5.00

12

The local sandwich shop sells turkey sandwiches with your choice of two vegetables. The choices are lettuce, tomato, onion, and pickles.

How many different combinations of vegetables are there for a sandwich? _____

List them:

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CYCLE 7

Name _____ Date _____

1

A. $\begin{array}{r} 426 \\ +\ 366 \\ \hline \end{array}$ $\begin{array}{r} 256 \\ -\ 107 \\ \hline \end{array}$

B. $\begin{array}{r} 3 \\ \times 2 \\ \hline \end{array}$ $\begin{array}{r} 4 \\ \times 2 \\ \hline \end{array}$ $\begin{array}{r} 5 \\ \times 2 \\ \hline \end{array}$ $\begin{array}{r} 6 \\ \times 2 \\ \hline \end{array}$ $\begin{array}{r} 7 \\ \times 2 \\ \hline \end{array}$

C. $\begin{array}{r} 1 \\ \times 2 \\ \hline \end{array}$ $\begin{array}{r} 2 \\ \times 2 \\ \hline \end{array}$ $\begin{array}{r} 8 \\ \times 2 \\ \hline \end{array}$ $\begin{array}{r} 9 \\ \times 2 \\ \hline \end{array}$ $\begin{array}{r} 10 \\ \times 2 \\ \hline \end{array}$

2

2 rows of 4 people in each row is 2 × 4 = 8, OR 4 columns of 2 people in each column is 4 × 2 = 8.

Write matching multiplication number sentences for the pictures:

_____

3

Here is a pictograph showing the number of cups of coffee sold by different cafes.

Hours at Work

Coffee Club	☕ ☕
Coffee Zone	☕
Coffee Palace	☕ ☕ ☕

Each ☕ equals 50 cups of coffee.

A. How many cups did Coffee Palace sell? ____

B. How many cups less did Coffee Zone sell than Coffee Club? _____

4

A clerk made $1,000 in January, $2,000 in February, and $3,000 in March. If the pattern continued, how much money did he make in . . .

A. May? $_____

B. June? $_____

C. July? $_____

D. August? $_____

E. September? $_____

5

Using a meter stick, measure things in the room that are about 1 meter long, and list 5 of the things:

A. _____

B. _____

C. _____

D. _____

E. _____

6

A. 3 feet is equivalent to _____ inches.

B. 1 yard is 36 inches. 2 yards is equivalent to _____ inches.

C. 1 yard is 36 inches. 3 yards is equivalent to _____ inches.

D. 1 meter is 100 centimeters. 2 meters is equivalent to _____ centimeters.

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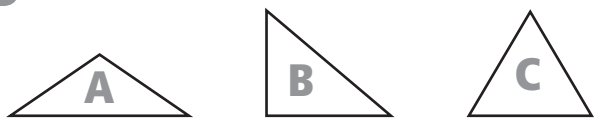
CYCLE 7

Name _____ Date _____

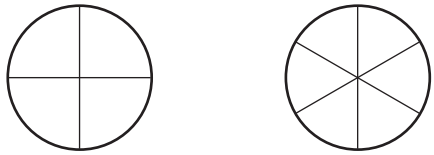
7



Write the properties of the three triangles:

	A	B	C
Number of right angles			
Number of acute angles			
Number of obtuse angles			

8



A. The first circle is divided into _____ths. Shade $\frac{2}{4}$.

B. The second circle is divided into _____ths. Shade $\frac{3}{6}$.

C. Select a symbol that makes the number sentence true: $\frac{2}{4}$ (< > =) $\frac{3}{6}$.

9

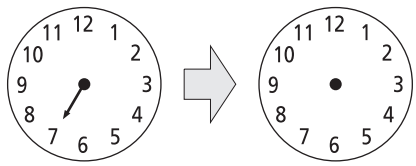
A. Bill has 3 dimes and a nickel. John has 4 dimes and a nickel. How much more money does John have than Bill?

B. Bill has 1 quarter, 2 dimes, and a nickel. John has 6 dimes and a nickel. Who has more money? _____

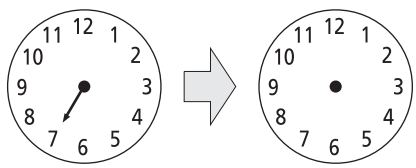
How much more money? _____

10

A. The starting time was 7:00. 2 hours have passed. Draw the hour hand for the ending time:



B. The starting time was 7:00. 6 hours have passed. Draw the hour hand for the ending time:



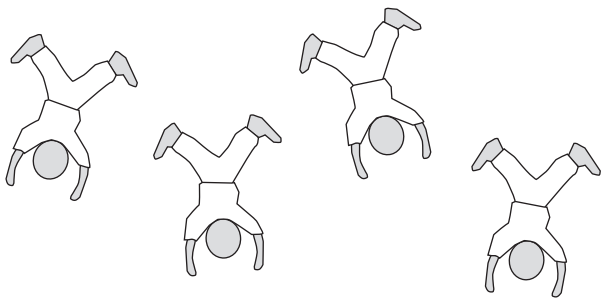
11

A. A restaurant bought 3 dozen eggs at $0.95 per dozen. What was the estimated total cost of the eggs?

B. A restaurant bought 5 dozen eggs at $0.99 per dozen. What was the estimated total cost of the eggs?

12

Gymnast Carlos has 1 pair of black pants and 1 pair of white pants. He has a black shirt and a blue shirt. How many different combinations of outfits does he have? _____
Color his outfits:



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CYCLE 8

Name _____ Date _____

1

A.

$$\begin{array}{r} 426 \\ +\ 366 \\ \hline \end{array} \qquad \begin{array}{r} 443 \\ -\ 407 \\ \hline \end{array}$$

B.

$$\begin{array}{r} 3 \\ \times 5 \\ \hline \end{array} \quad \begin{array}{r} 4 \\ \times 5 \\ \hline \end{array} \quad \begin{array}{r} 5 \\ \times 5 \\ \hline \end{array} \quad \begin{array}{r} 6 \\ \times 5 \\ \hline \end{array} \quad \begin{array}{r} 7 \\ \times 5 \\ \hline \end{array}$$

C.

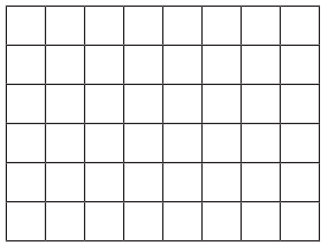
$$\begin{array}{r} 1 \\ \times 5 \\ \hline \end{array} \quad \begin{array}{r} 2 \\ \times 5 \\ \hline \end{array} \quad \begin{array}{r} 8 \\ \times 5 \\ \hline \end{array} \quad \begin{array}{r} 9 \\ \times 5 \\ \hline \end{array} \quad \begin{array}{r} 10 \\ \times 5 \\ \hline \end{array}$$

2

A. There were 5 vans driving children to the beach. There were 6 children riding in each van. How many children went to the beach _____?

B. Shade squares in the grid to represent the multiplication problem shown here:

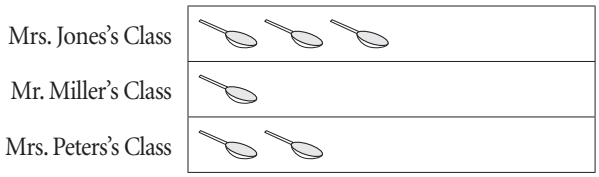
$5 \times 4 =$ ____



3

This pictograph shows how many students in each teacher's class help cook at home.

Number of Students Who Help Cook



Each spoon equals 3 helpers.

A. How many students in Mrs. Peters's class help cook at home? _____

B. Which class has the most students who help cook? _____

4

A tree is 2 feet tall on Monday, 4 feet tall on Tuesday, and 6 feet tall on Wednesday. If the tree continued to grow at the same rate, then how tall was it on . . .

A. Friday? _____feet

B. Saturday? _____feet

C. Sunday? _____feet

D. The following Monday? _____feet

E. The following Wednesday? _____feet

5

Select appropriate units in the box and match the units with the measurements:

A. _____ driving distance

B. _____ measuring the height of a tree

C. _____ measuring the length of our feet

a. inches and centimeters
b. yards and meters
c. miles and kilometers

6

Bob was told to make 15 using three numbers. He wrote 10 + 3 + 2 = 15.

Write three numbers in the blanks to make the number sentences true:

A. _____ + _____ + _____ = 20

B. _____ + _____ + _____ = 100

C. _____ + _____ + _____ = 83

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CYCLE 8

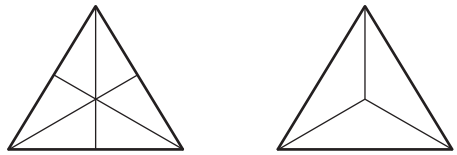
Name _____ Date _____

7

Write the properties of the three shapes:

	A	B	C
Number of right angles			
Number of acute angles			
Number of obtuse angles			

8



A. The first triangle is divided into _____ths. Shade $\frac{2}{6}$.

B. The second triangle is divided into _____ths. Shade $\frac{1}{3}$.

C. Select a symbol to make the number sentence true: $\frac{2}{6}$ (< > =) $\frac{1}{3}$.

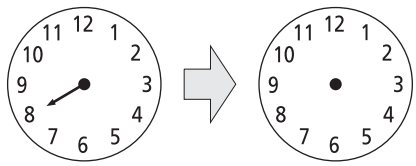
9

A. Bill has 5 dimes, a nickel, and 7 pennies. John has 4 dimes and 3 nickels. Who has more money? _____
How much more money? _____

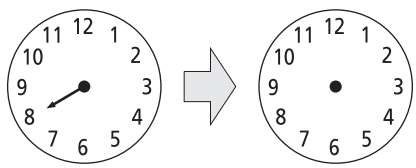
B. Bill has 1 quarter, 2 dimes, and a nickel. John has 6 dimes and a nickel. Who has more money? _____
How much more money? _____

10

A. The starting time was 8:00. 2 hours have passed. Draw the hour hand for the ending time:



B. The starting time was 8:00. 6 hours have passed. Draw the hour hand for the ending time:



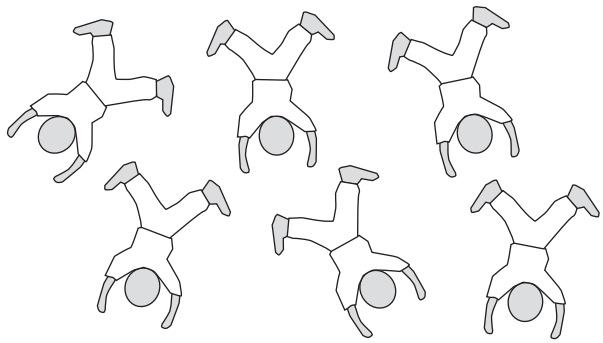
11

A. A restaurant bought 7 dozen eggs at $0.99 per dozen. What was the estimated total cost of the eggs?

B. A restaurant bought 10 dozen eggs at $0.99 per dozen. What was the estimated total cost of the eggs?

12

Gymnast Carlos has 1 pair of black pants, 1 pair of red pants, and 1 pair of white pants. He has a black shirt and a blue shirt. How many different combinations of outfits does he have? _____ Color his outfits:



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CYCLE 9

Name _____ Date _____

1

A.

$$\begin{array}{r} 334 \\ +\,683 \\ \hline \end{array} \qquad \begin{array}{r} 854 \\ -\,391 \\ \hline \end{array}$$

B.

$$\begin{array}{r} 3 \\ \times 9 \\ \hline \end{array} \quad \begin{array}{r} 4 \\ \times 9 \\ \hline \end{array} \quad \begin{array}{r} 5 \\ \times 9 \\ \hline \end{array} \quad \begin{array}{r} 6 \\ \times 9 \\ \hline \end{array} \quad \begin{array}{r} 7 \\ \times 9 \\ \hline \end{array}$$

C.

$$\begin{array}{r} 1 \\ \times 9 \\ \hline \end{array} \quad \begin{array}{r} 2 \\ \times 9 \\ \hline \end{array} \quad \begin{array}{r} 8 \\ \times 9 \\ \hline \end{array} \quad \begin{array}{r} 9 \\ \times 9 \\ \hline \end{array} \quad \begin{array}{r} 10 \\ \times 9 \\ \hline \end{array}$$

2

A. Mark saved $7.00 every day for 9 days. Barb saved $9.00 every day for 7 days. Who saved more? _____
Show your work:

B. Mark has 9 stacks of football cards. Each stack has 9 cards. How many football cards does Mark have?

3

Dinosaur diggers found some bones as shown in the graph.

Number of Bones Found

Doug	🦴 🦴
Frank	🦴 🦴 🦴
Suzy	🦴

Each 🦴 equals 10 bones.

A. Who found less than 20 bones? _____

B. How many more bones did Frank find than Doug? _____

4

Your class's homework was to write a number pattern. Here are your classmates' answers. Circle all the names of students who counted by 2s:

Mary	4, 6, 8, 10, 12,…
Patrisha	3, 6, 9, 12,…
Jim	122, 124, 126, 128,…
Justin	125, 128, 131, 134,…
Rachael	400, 402, 404, 406,…
Ryan	101, 102, 103, 104,…

5

Using a ruler, measure the lengths of the things listed to the nearest $\frac{1}{2}$ inch and record:

A. The length of my shoe:_____ inches

B. The width of my table: _____ inches

C. The length of my table: _____ inches

D. The width of my math book: _____ inches

E. The length of my math book: _____ inches

6

Fill in the blanks so that the statements are correct.

A. ___ + ___ = 11

B. ___ − ___ = 5

C. ___ × ___ = 14

D. ___ × ___ = 45

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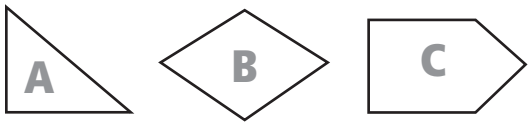
CYCLE 9

Name _____ Date _____

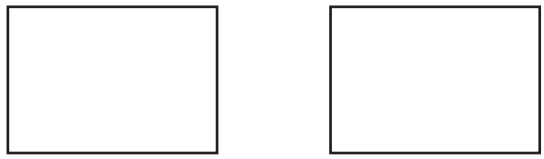
7



Write the properties of the three shapes:

	A	B	C
Number of right angles			
Number of acute angles			
Number of obtuse angles			

8



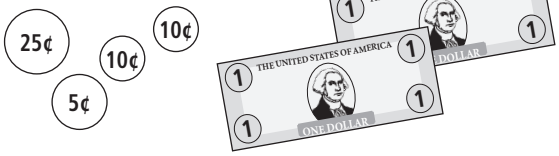
A. Divide the first rectangle into halves and shade $\frac{1}{2}$.

B. Divide the second rectangle into fourths and shade $\frac{3}{4}$.

C. Select a symbol to make the number sentence true: $\frac{1}{2}$ (< > =) $\frac{3}{4}$.

9

A. Frank has this much money. Does he have enough for a football ticket for $3.00? _____



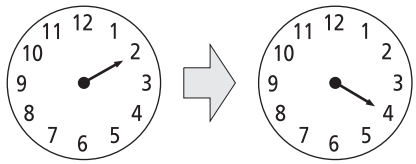
B. A toy costs $5.99 and you pay with a $10 bill. About how much money would you receive for change?

a. about $5.00 **c.** about $4.00

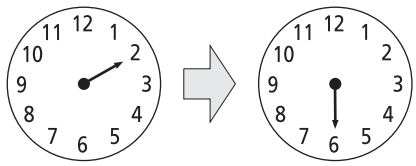
b. about $6.00 **d.** about $8.00

10

A. The movie started at 2:00 and ended at 4:00. How many hours have gone by? _____



B. The movie started at 2:00 and ended at 6:00. How many hours have gone by? _____



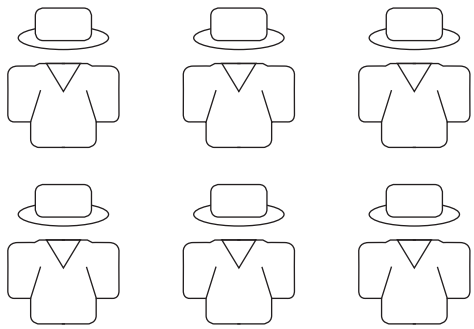
11

A. Mrs. James bought 6 pints of berries. Each pint cost 97¢. About how many $1 bills does she need to pay?

B. Mrs. James bought 10 pints of berries. Each pint cost 97¢. She has one $10 bill. Is it enough to pay for the berries?

12

Amanda has 3 shirts: 1 white, 1 pink, and 1 black. She also has 2 hats: 1 red and 1 black. How many different combinations of hats and shirts can she make? _____



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CYCLE 10

Name _____ Date _____

1

A.

$$\begin{array}{r} 358 \\ +\,683 \\ \hline \end{array} \qquad \begin{array}{r} 854 \\ -\,394 \\ \hline \end{array}$$

B.

$$\begin{array}{r} 3 \\ \times 5 \\ \hline \end{array} \quad \begin{array}{r} 4 \\ \times 9 \\ \hline \end{array} \quad \begin{array}{r} 5 \\ \times 2 \\ \hline \end{array} \quad \begin{array}{r} 6 \\ \times 5 \\ \hline \end{array} \quad \begin{array}{r} 7 \\ \times 9 \\ \hline \end{array}$$

C.

$$\begin{array}{r} 1 \\ \times 2 \\ \hline \end{array} \quad \begin{array}{r} 2 \\ \times 5 \\ \hline \end{array} \quad \begin{array}{r} 8 \\ \times 9 \\ \hline \end{array} \quad \begin{array}{r} 9 \\ \times 2 \\ \hline \end{array} \quad \begin{array}{r} 10 \\ \times 5 \\ \hline \end{array}$$

2

A. Sue has three rows of stars. Each row has five stars. Which number sentence tells how many stars there are in all?

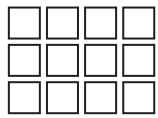
a. 5 + 5 + 5 = 15

b. 3 × 5 = 15

c. 5 × 3 = 15

d. a, b, and c are all correct

B. Write a number sentence that tells how many squares there are in all.



3

Mrs. Jones keeps track of students' math scores. Doug got 5 A's, Frank got 15 A's and Suzy got 10 A's. Fill in the pictograph.

Number of A's in Math

Doug	☺
Frank	
Suzy	

Each ☺ equals 5 A's.

4

Fill in the blanks and write the rule for the input-output table.

Input	Output
1	2
3	6
4	
8	16
9	

The rule is:

5

Using a ruler, measure the lengths of the things listed to the nearest $\frac{1}{2}$ cm and record:

A. The length of my shoe: _____ cm

B. Width of my table: _____ cm

C. Length of my table: _____ cm

D. Width of my math book: _____ cm

E. Length of my math book: _____ cm

6

A. How many dimes do you need to make 100¢?

_____ dimes

B. How many tens do you need to make 100?

_____tens

C. How many tens do you need to make 200?

_____tens

D. How many tens do you need to make 300?

_____tens

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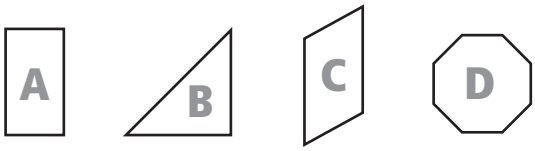
CYCLE 10

Name _____ Date _____

7

Match by writing the correct letter in the blank.



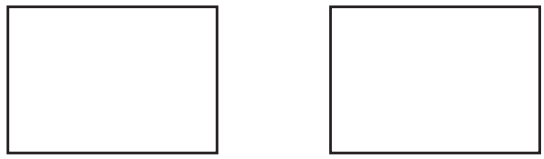
_____ It has one right angle.

_____ It has two angles greater than a right angle.

_____ It has as many right angles as there are sides.

_____ It has as many obtuse angles as there are sides.

8



A. Divide the first rectangle into fourths and shade $\frac{3}{4}$.

B. Divide the second rectangle into sixths and shade $\frac{3}{6}$.

C. Select a symbol to make the number sentence true: $\frac{3}{4}$ (< > =) $\frac{3}{6}$.

9

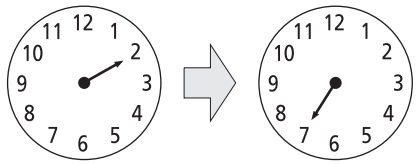
Antonio wants to buy a CD. The CD costs $10. He has $4 saved, and he can save $2 a week.

How many weeks will it take Antonio to save enough money to buy the CD? _____

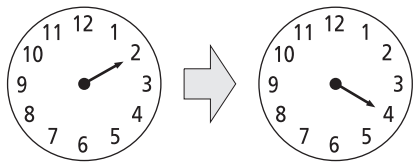
Show your work:

10

A. The party started at 2:00 and ended at 7:00. How many hours have gone by? _____



B. The movie started at 2:00 and ended at 4:00. How many hours have gone by? _____



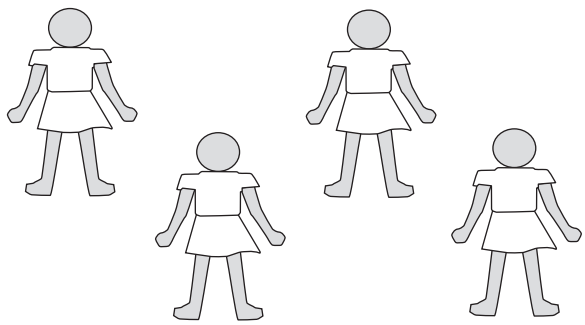
11

A. Mrs. James bought 5 pints of berries. Each pint cost 97¢. About how many $1 bills does she need to pay?

B. Mrs. James bought 20 pints of berries. Each pint cost 97¢. She has one $20 bill. Is it enough to pay the berries?

12

Wanda has a yellow skirt and a pink skirt and a red shirt and a pink shirt. How many different combinations of outfits can Wanda have? _____ Color her outfits:



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CYCLE 11

Name _____ Date _____

1

A.

$$\begin{array}{r} 774 \\ +\ 287 \\ \hline \end{array} \qquad \begin{array}{r} 754 \\ -\ 591 \\ \hline \end{array}$$

B.

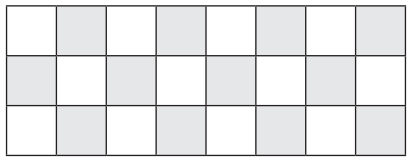
$$\begin{array}{r} 3 \\ \times 4 \\ \hline \end{array} \quad \begin{array}{r} 4 \\ \times 4 \\ \hline \end{array} \quad \begin{array}{r} 5 \\ \times 3 \\ \hline \end{array} \quad \begin{array}{r} 6 \\ \times 4 \\ \hline \end{array} \quad \begin{array}{r} 7 \\ \times 3 \\ \hline \end{array}$$

C.

$$\begin{array}{r} 1 \\ \times 4 \\ \hline \end{array} \quad \begin{array}{r} 2 \\ \times 4 \\ \hline \end{array} \quad \begin{array}{r} 8 \\ \times 3 \\ \hline \end{array} \quad \begin{array}{r} 9 \\ \times 4 \\ \hline \end{array} \quad \begin{array}{r} 10 \\ \times 3 \\ \hline \end{array}$$

2

A. Barbara has a new tiled patio floor that looks like this:

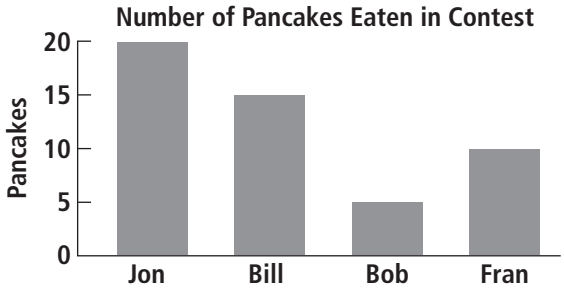


How many tiles does she have in her patio?

B. The circus is in town. One of the clowns has 4 bags of toys. Each bag has 8 toys in it. How many toys does the clown have?

3

Four students had a pancake-eating contest.



A. Who ate fifteen pancakes? _____

B. How many more pancakes did Jon eat than Bob? _____

4

Jim tried to guess the next number in this pattern. His guess was 17.

12 14 16 _____

Is Jim's guess correct? _____ Explain why or why not:

5

Get a thermometer from your teacher. Some show F (Fahrenheit) and some show C (Celsius). We measure the temperature with it. Measure your body temperature by placing a thermometer under your armpit for a minute:

_____ degrees in F; _____ degrees in C

Clean the thermometer with water before handing it to another student. Now check the classroom thermometer for the temperature in the room. Record it here:

_____ degrees in F; _____ degrees in C

6

Example:

4 × 100 plus 2 × 10 plus 5 × 1

= 400 + 20 + 5

= 425

Write the following problem in the same way:

8 × 100 plus 4 × 10 plus 2 × 1

= _____ + _____ + _____

= _____

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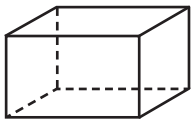
CYCLE 11

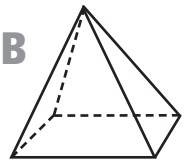
Name _____ Date _____

7

A



B

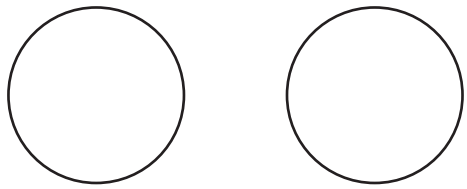


Write the properties and names of the shapes:

	A	B
Number of faces		
Name of the faces/shapes		
Number of edges		
Number of vertexes		
Name of the figure		

8

By drawing lines, divide the circles as indicated:



A. Divide the first circle into halves and shade $\frac{1}{2}$.

B. Divide the second circle into fourths and shade $\frac{3}{4}$.

9

Draw combinations of quarters, dimes, nickels, and pennies to show:

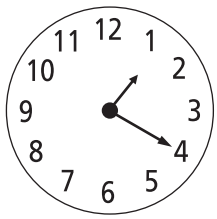
A. $2.00:

B. $1.80:

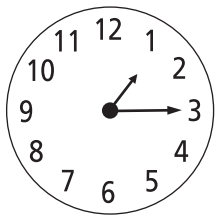
C. $1.23:

10

Look at how the time is written for the first clock. Write the time for the second clock:



1:20



_____

11

A. Sam takes a 2-mile walk along a trail. Which of the following is a reasonable amount of time for Sam to walk the trail?

a. 60 seconds **c.** 60 hours

b. 60 minutes **d.** 60 days

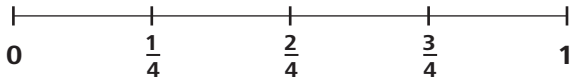
B. Sam takes a 4-mile walk along a trail. Which of the following is a reasonable amount of time for Sam to walk the trail?

a. 20 minutes

b. 2 hours

c. 2 days

12



You reach into a bag with 1 blue, 1 white, and 2 red marbles and pick 1 without looking.

Write ① on the number line for the chance of getting a red marble.

Write ② on the number line for the chance of getting a blue marble.

Write ③ on the number line for the chance of getting a blue, red, or white marble.

Write ④ on the number line for the chance of getting a black marble.

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CYCLE 12

Name _____ Date _____

1

A.

$$\begin{array}{r} 664 \\ +\ 286 \\ \hline \end{array} \qquad \begin{array}{r} 654 \\ -\ 591 \\ \hline \end{array}$$

B.

$$\begin{array}{r} 3 \\ \times 6 \\ \hline \end{array} \quad \begin{array}{r} 4 \\ \times 6 \\ \hline \end{array} \quad \begin{array}{r} 5 \\ \times 6 \\ \hline \end{array} \quad \begin{array}{r} 6 \\ \times 6 \\ \hline \end{array} \quad \begin{array}{r} 7 \\ \times 6 \\ \hline \end{array}$$

C.

$$\begin{array}{r} 1 \\ \times 6 \\ \hline \end{array} \quad \begin{array}{r} 2 \\ \times 6 \\ \hline \end{array} \quad \begin{array}{r} 8 \\ \times 6 \\ \hline \end{array} \quad \begin{array}{r} 9 \\ \times 6 \\ \hline \end{array} \quad \begin{array}{r} 10 \\ \times 6 \\ \hline \end{array}$$

2

A. Lakisha has 5 cans of cookies. Each can contains 30 cookies. To find out how many cookies Lakisha has, which math problem would you solve?

a. 30×5 **c.** $30 \div 5$

b. $30 - 5$ **d.** $30 + 5$

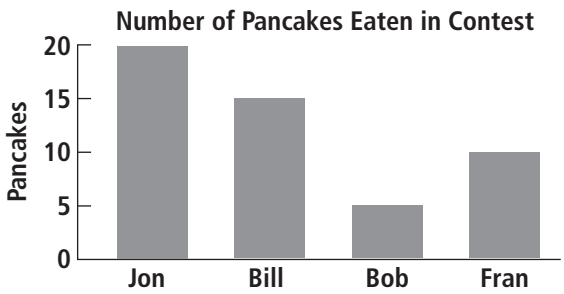
B. Jim has 3 cans of cookies. Each can contains 18 cookies. To find out how many cookies Jim has, which math problem would you solve?

a. 18×3 **c.** $18 \div 3$

b. $18 - 3$ **d.** $18 + 3$

3

Four students had a pancake-eating contest.



A. Who ate twice as many pancakes as Fran? _____

B. How many fewer pancakes did Bob eat than Bill? _____

4

A. This is a number pattern.

0, 2, 4, 6, 8,…

Which of the following numbers would be in this pattern if this pattern continued? Circle one: 51, 52, 53, 55

B. This is a number pattern.

3, 5, 7, 9, 11,…

Which of the following numbers would be in this pattern if the pattern continued? Circle one: 50, 51, 54, 56

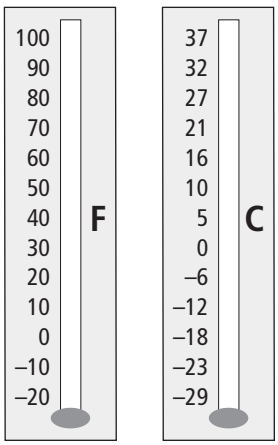
5

Check today's temperature in your town (by TV, Internet, newspaper, or direct measurement).

Today's lowest:
_____ °F; ____ °C

Today's highest:
_____ °F; ____ °C

Draw today's highest temperature on the thermometers →



6

Example:

4×100 plus 2×10 plus 5×1

$= 400 + 20 + 5$

$= 425$

Write the following problem in the same way:

9×100 plus 4×10 plus 4×1

= _____ + _____ + _____

= _____

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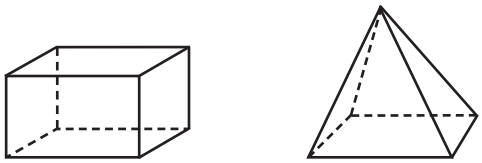
CYCLE 12

Name _____ Date _____

7



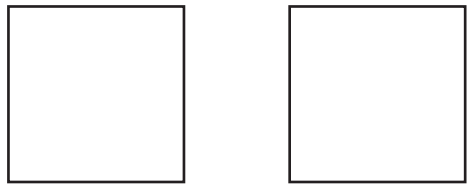
Write one property that is common to both figures. Then write two properties that differ.

Common:

Different:

8

Draw lines dividing the squares as indicated:

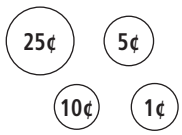


A. Divide the first square into fourths and shade $\frac{1}{4}$.

B. Divide the second square into thirds and shade $\frac{2}{3}$.

9

By drawing combinations of quarters, dimes, nickels, and pennies, show $1.00:



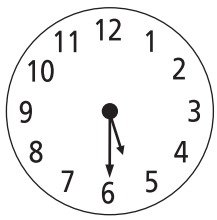
A. Using only 4 coins:

B. Using only 10 coins:

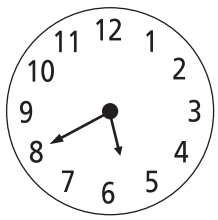
C. Using only 6 coins:

10

Write the time shown on these clocks:



_____ : _____



_____ : _____

11

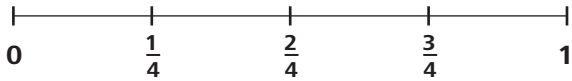
A. Sam takes a 3-mile walk along a trail. Which of the following is a reasonable amount of time for Sam to walk the trail?

- **a.** 15 minutes
- **b.** 1.5 hours
- **c.** 1.5 days

B. Sam takes a 1-mile walk along a trail. Which of the following is a reasonable amount of time for Sam to walk the trail?

- **a.** 30 minutes
- **b.** 1 hour
- **c.** 1 day

12



You reach into a bag with 1 red, 1 white, and 2 blue marbles and pick 1 without looking.

Write ① on the number line for the chance of getting a red marble.

Write ② on the number line for the chance of getting a blue marble.

Write ③ on the number line for the chance of getting a blue, red, or white marble.

Write ④ on the number line for the chance of getting a black marble.

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CYCLE 13

Name _____ Date _____

1

A.

$$\begin{array}{r} 554 \\ +\ 285 \\ \hline \end{array} \qquad \begin{array}{r} 554 \\ -\ 191 \\ \hline \end{array}$$

B.

$$\begin{array}{r} 3 \\ \times 7 \\ \hline \end{array} \quad \begin{array}{r} 4 \\ \times 7 \\ \hline \end{array} \quad \begin{array}{r} 5 \\ \times 7 \\ \hline \end{array} \quad \begin{array}{r} 6 \\ \times 7 \\ \hline \end{array} \quad \begin{array}{r} 7 \\ \times 7 \\ \hline \end{array}$$

C.

$$\begin{array}{r} 1 \\ \times 7 \\ \hline \end{array} \quad \begin{array}{r} 2 \\ \times 7 \\ \hline \end{array} \quad \begin{array}{r} 8 \\ \times 7 \\ \hline \end{array} \quad \begin{array}{r} 9 \\ \times 7 \\ \hline \end{array} \quad \begin{array}{r} 10 \\ \times 7 \\ \hline \end{array}$$

2

A. Candy bought 7 bags of popcorn. Each bag cost $3.00. Candy also bought 8 drinks. Each drink cost $2.00. How much money did Candy pay?

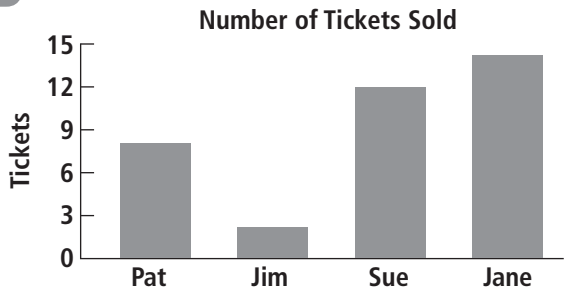
B. A flea can jump 130 times its own height. What if you could do the same thing, and your height is 42 inches? Which equation would you use to find the answer?

a. 130 + 42

b. 130 × 42

c. 130 ÷ 42

3



A. Who sold about 8 tickets for the school play? _____

B. Who sold about 10 more tickets than Jim? _____

4

Jim has $5 on Monday, $10 on Tuesday, $15 on Wednesday, and $20 on Thursday. If he keeps making the same amount of money each day, then how much will he have on . . .

A. Friday? $_____

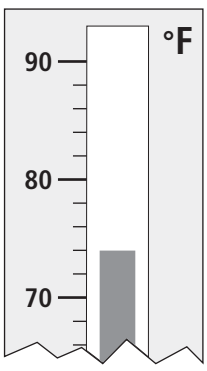
B. Saturday? $_____

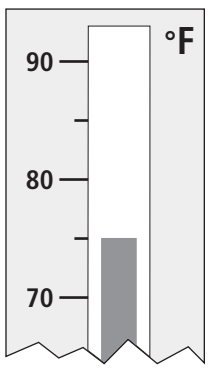
C. Sunday? $_____

D. The following Monday? $_____

5

Write the temperatures shown on the two thermometers:





A. _____°F **B.** _____°F

6

Example:

537 = 5 × 100 plus
3 × 10 plus
7 × 1

Write the following problem in the same way:

632 = _____ × _____ plus
_____ × _____ plus
_____ × _____ plus

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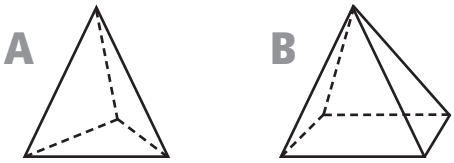
CYCLE 13

Name _____ Date _____

7



Write the properties of the shapes:

	A	B
Number of faces		
Name of the faces/shapes		
Number of edges		
Number of vertexes		
Name of the figure		

8

A. Using a ruler, draw a line segment that is $1\frac{1}{2}$ inches long, starting at the ⋆.

⋆

B. Draw a line segment $1\frac{3}{4}$ inches long.

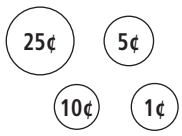
⋆

C. Draw a line segment $1\frac{1}{4}$ inches long.

⋆

9

By drawing combinations of quarters, dimes, nickels, and pennies, show $1.20:



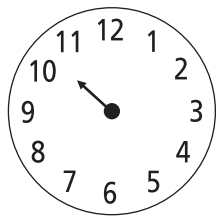
A. Using only 6 coins:

B. Using only 12 coins:

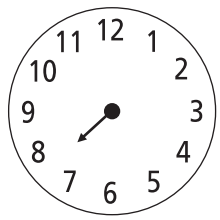
C. Using only 7 coins:

10

Draw the minute hand to show the time:



10:20



7:45

11

The product of 1.9×2 is about 4.

A. The product of 1.9×3 is about _____ .

B. The product of 1.9×5 is about _____ .

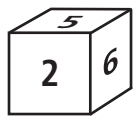
C. The product of 1.9×8 is about _____ .

D. The product of 1.9×10 is about _____ .

E. The product of 1.9×11 is about _____ .

12

The cube has 6 faces and they are numbered 1 through 6.



The probability of tossing the cube and getting 1 on the top when it lands is 1 out of 6 or $\frac{1}{6}$.

A. The probability of getting 4 on the top when it lands is:
_____ out of _____ or ☐

B. The probability of getting either 1 or 2 on the top when it lands is:
_____ out of _____ or ☐

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CYCLE 14

Name _____ Date _____

1

A. $444 + 284$ $\qquad$ $754 - 591$

B. 3×8 $\quad$ 4×8 $\quad$ 5×8 $\quad$ 6×8 $\quad$ 7×8

C. 1×8 $\quad$ 2×8 $\quad$ 8×8 $\quad$ 9×8 $\quad$ 10×8

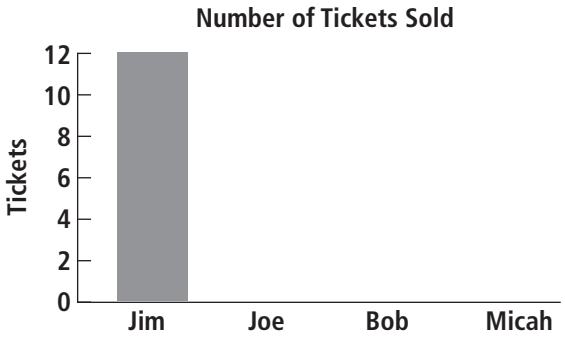
2

A. Jared has two numbers. When he added the numbers, he got a sum of 15. When he multiplied the numbers, he got a product of 56. What are the two numbers?

B. Jared has two numbers. When he added the numbers, he got a sum of 14. When he multiplied the numbers, he got a product of 48. What are the two numbers?

3

Jim sold 12 tickets, Joe sold 8 tickets, Micah sold 4 tickets, and Bob sold 2 tickets. Complete the bar graph.



4

During a rainstorm, a pond gets deeper each hour, as shown in the table:

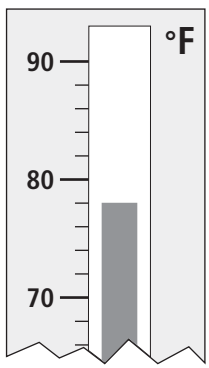
5 o'clock	4 ft
6 o'clock	8 ft
7 o'clock	12 ft
8 o'clock	16 ft
9 o'clock	20 ft

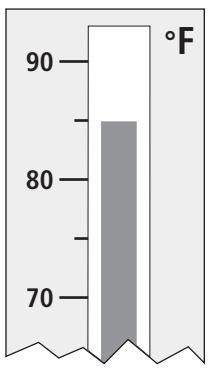
A. How deep will it be at 11 o'clock? _____ ft

B. How deep will it be at 12 o'clock? _____ ft

5

Write the temperatures shown on the two thermometers:





A. _____°F $\qquad$ **B.** _____°F

6

Example:

537 = 5 × 100 plus
3 × 10 plus
7 × 1

Write the following problem in the same way:

836 = _____ × _____ plus
_____ × _____ plus
_____ × _____ plus

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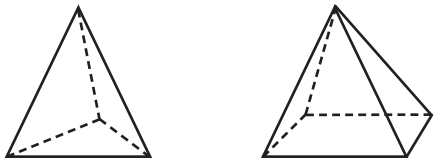
CYCLE 14

Name _____ Date _____

7



Write one property that is common to the two figures:

Write two properties that are different between the two figures:

8

On the number line, mark ***A*** over 3.2.

Mark ***B*** over 4.5.

Mark ***C*** over $3\frac{1}{2}$.

Mark ***D*** over 5.5.

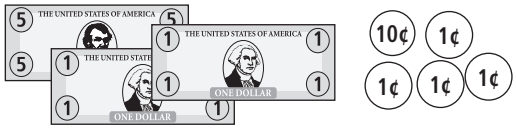
9

Mari bought a book that cost $3.86. She gave the clerk a $10 bill. Which picture shows the correct change?

a.

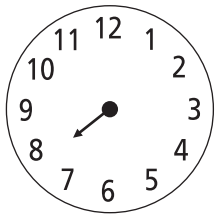
b.

c.

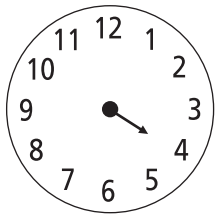


10

Draw the minute hand to show the time on each clock:



7:55



4:05

11

The product of 2.9×2 is about 6.

A. The product of 2.9×3 is about _____ .

B. The product of 2.9×5 is about _____ .

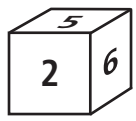
C. The product of 2.9×8 is about _____ .

D. The product of 2.9×10 is about _____ .

E. The product of 2.9×11 is about _____ .

12

The cube has 6 faces and they are numbered 1 through 6.



The probability of tossing the cube and getting 5 on the top when it lands is 1 out of 6 or $\frac{1}{6}$.

A. The probability of getting 2 on the top when it lands is:
_____ out of _____ or ☐

B. The probability of getting an even number on the top when it lands is:
_____ out of _____ or ☐

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CYCLE 15

Name _____ Date _____

1

A.

$$\begin{array}{r} 347 \\ +\ 257 \\ \hline \end{array} \qquad \begin{array}{r} 672 \\ -\ 361 \\ \hline \end{array}$$

B.

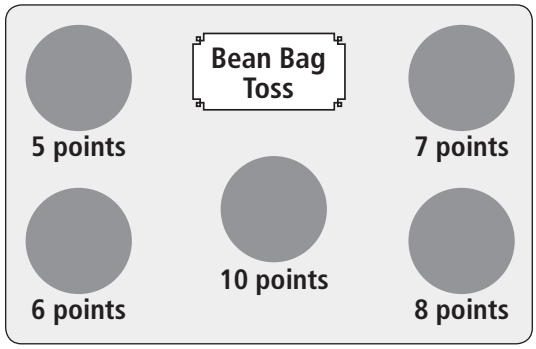
$$\begin{array}{r} 5 \\ \times 7 \\ \hline \end{array} \quad \begin{array}{r} 7 \\ \times 5 \\ \hline \end{array} \quad \begin{array}{r} 3 \\ \times 7 \\ \hline \end{array} \quad \begin{array}{r} 7 \\ \times 3 \\ \hline \end{array} \quad \begin{array}{r} 8 \\ \times 3 \\ \hline \end{array}$$

C.

$$\begin{array}{r} 3 \\ \times 8 \\ \hline \end{array} \quad \begin{array}{r} 5 \\ \times 5 \\ \hline \end{array} \quad \begin{array}{r} 8 \\ \times 6 \\ \hline \end{array} \quad \begin{array}{r} 6 \\ \times 8 \\ \hline \end{array} \quad \begin{array}{r} 6 \\ \times 7 \\ \hline \end{array}$$

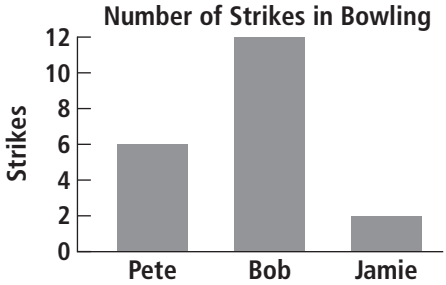
2

Sue tossed 2 bean bags in the same hole and 1 in a second hole on this gameboard. What is the highest score that Sue could receive for the 3 tosses? _____



3

Here is a bar graph showing the number of strikes each player bowled in one game.



A. Who bowled the fewest strikes? _____

B. How many more strikes did Bob bowl than Pete? _____

4

During a rainstorm, a pond gets deeper each hour, as shown in the table:

5 o'clock	4 ft
6 o'clock	8 ft
7 o'clock	12 ft
8 o'clock	16 ft
9 o'clock	20 ft

When will the water's depth reach 28 ft?

5

Use your ruler to measure the length of each side of this rectangle.

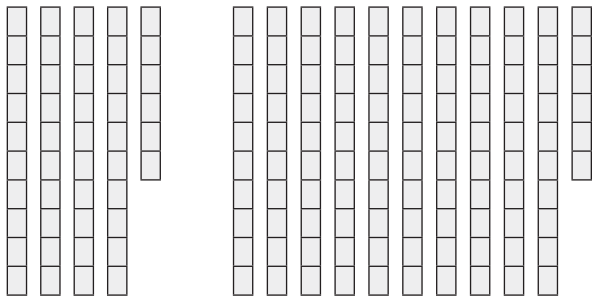
Width (long side) = _____ cm

Height (short side) = _____ cm

Perimeter
(distance around the shape) = _____ cm

6

Count the blocks and write the correct numbers underneath the blocks:



A. _____ **B.** _____

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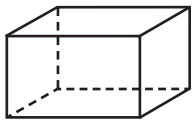
CYCLE 15

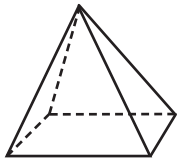
Name _____ Date _____

7

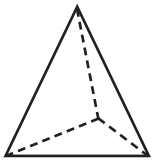
A



B



C



Match the figures with the descriptions:

It has 5 faces with 8 edges. _____

It has 4 faces with 6 edges. _____

It has 6 faces with 12 edges. _____

8

A. Using a ruler, draw a line segment $5\frac{1}{2}$ cm long, starting at the ✶.

✶

B. Draw a line segment 3.5 cm long.

✶

C. Draw a line segment 3.7 cm long.

✶

9

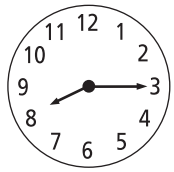
A. Shanty bought a CD that cost $7.55 and gave the clerk a $10 bill. What is the correct change? _____ Show your work:

B. Amy bought a CD that cost $4.75 and gave the clerk a $10 bill. What is the correct change? _____ Show your work:

10

Write the time in two ways:

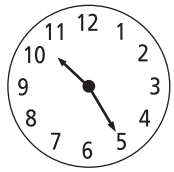
A.



_____ : _____

_____ minutes after _____

B.



_____ : _____

_____ minutes after _____

11

The product of 4.1×2 is about 8.

A. The product of 4.1×3 is about _____ .

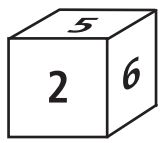
B. The product of 4.1×5 is about _____ .

C. The product of 4.1×8 is about _____ .

D. The product of 4.1×10 is about _____ .

E. The product of 4.1×11 is about _____ .

12



You and your brother are playing with a number cube. If you toss the cube and the number 3 or higher is on top when it lands, your brother wins. If the number on top is less than 3 when the number cube lands, you win. Is this a fair game? _____Why, or why not? Explain.

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CYCLE 16

Name _____ Date _____

1

A.

$$\begin{array}{r} 5{,}947 \\ +\ 2{,}497 \\ \hline \end{array} \qquad \begin{array}{r} 6{,}772 \\ -\ 4{,}261 \\ \hline \end{array}$$

B.

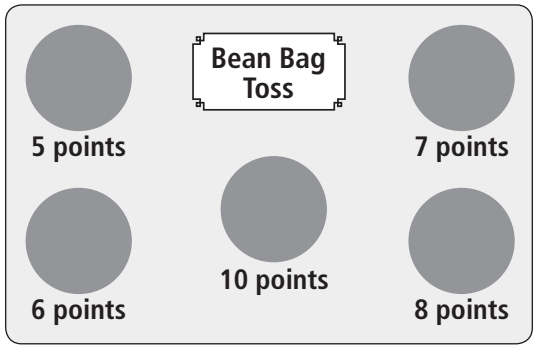
$$\begin{array}{r} 7 \\ \times 7 \\ \hline \end{array} \quad \begin{array}{r} 4 \\ \times 4 \\ \hline \end{array} \quad \begin{array}{r} 5 \\ \times 5 \\ \hline \end{array} \quad \begin{array}{r} 6 \\ \times 6 \\ \hline \end{array} \quad \begin{array}{r} 8 \\ \times 8 \\ \hline \end{array}$$

C.

$$\begin{array}{r} 9 \\ \times 9 \\ \hline \end{array} \quad \begin{array}{r} 7 \\ \times 8 \\ \hline \end{array} \quad \begin{array}{r} 8 \\ \times 6 \\ \hline \end{array} \quad \begin{array}{r} 9 \\ \times 4 \\ \hline \end{array} \quad \begin{array}{r} 10 \\ \times 7 \\ \hline \end{array}$$

2

Sue tossed 4 bean bags in the same hole and 2 in another hole on this gameboard. What is the highest score that Sue could receive for the 6 tosses? _____



3

During a game of putt-putt golf, Jim got 6 holes in one, Pat got 5 holes in one, and Mary got 8 holes in one. Make a bar graph that shows this data.

4

A pond becomes deeper at a constant rate during a rainstorm. On the table below, fill in the pond's depth during a recent storm.

Time	Depth in cm
1 o'clock	3 cm
2 o'clock	6 cm
3 o'clock	9 cm
4 o'clock	cm
5 o'clock	cm
6 o'clock	cm

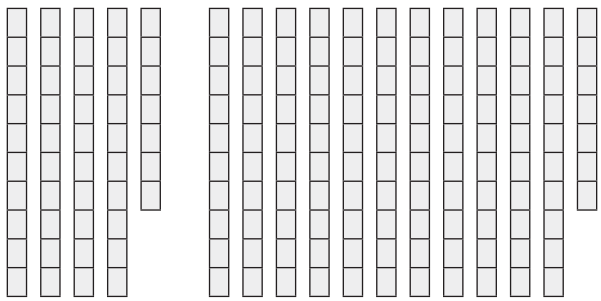
5

Using your ruler, make a rectangle with a height of 1 inch and a width of $2\frac{1}{4}$ inches:

The perimeter = _____inches.

6

Count the blocks and write the correct numbers underneath the blocks:



A. _____ **B.** _____

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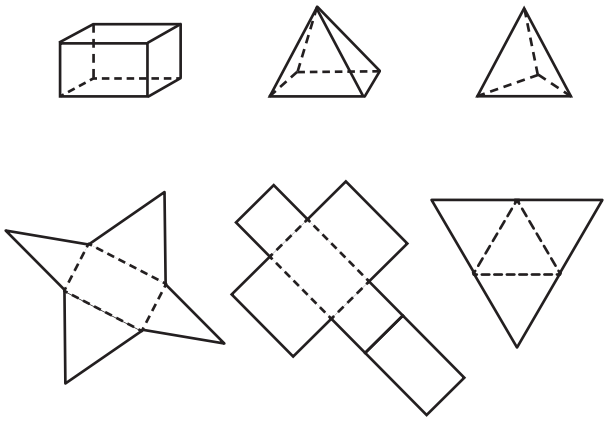
CYCLE 16

Name _____ Date _____

7

Draw lines to match the geometric figures to the flat patterns:



8

On the number line, mark over 5.2.

Mark over 4.7.

Mark over $3\frac{1}{2}$.

Mark over 4.5.

9

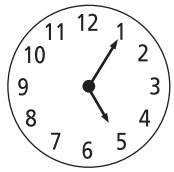
A. Shanty bought a book that cost $3.55 and gave the clerk a $5 bill. What is the correct change? _____
Show your work:

B. Amy bought a book that cost $2.75 and gave the clerk a $10 bill. What is the correct change? _____
Show your work:

10

Write the time in two ways:

A.



_____ : _____

_____ minutes after _____

B.

_____ : _____

_____ minutes after _____

11

The product of 6.1×2 is about 12.

A. The product of 6.1×3 is about _____ .

B. The product of 6.1×5 is about _____ .

C. The product of 6.1×8 is about _____ .

D. The product of 6.1×10 is about _____ .

E. The product of 6.1×11 is about _____ .

12

A. A gumball machine contains the following gumballs: 6 red, 2 white, 8 orange, 4 blue. If you put in a quarter and turn the handle for one gumball, which color are you LEAST LIKELY to get?

B. Which color are you MOST LIKELY to get?

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CYCLE 17

Name _____ Date _____

1

A.

$$\begin{array}{r} 6{,}647 \\ +\ 6{,}497 \\ \hline \end{array} \qquad \begin{array}{r} 2{,}772 \\ -\ 1{,}261 \\ \hline \end{array}$$

B.

$8 \times 9 =$ ___

$9 \times 8 =$ ___

$72 \div 8 =$ ___

$72 \div 9 =$ ___

C.

$7 \times 6 =$ ___

$6 \times 7 =$ ___

$42 \div 6 =$ ___

$42 \div 7 =$ ___

2

$2 \times 3 = 6$, and the equation has 3 other family facts: $3 \times 2 = 6$, $6 \div 3 = 2$ and $6 \div 2 = 3$.

A. Fill out 3 family facts for $3 \times 5 = 15$:

_____

_____

_____

B. Fill out 3 family facts for $3 \times 7 = 21$:

_____

_____

_____

3

Here is the weather report.

Day	Chance of Rain
Monday	50%
Tuesday	2%
Wednesday	32%
Thursday	75%
Friday	90%

A. Which day would be the best day for a picnic?

B. Which day would be the worst day for a picnic?

4

A glass holds water that is 12 cm deep. Each day, 2 cm of water evaporate. Fill in the table:

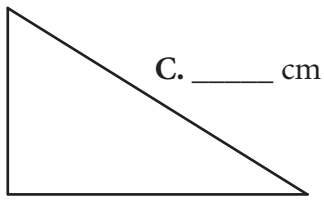
Days	Height of Water in the Glass
Starting	12 cm
Day 1	10 cm
Day 2	cm
Day 3	cm
Day 4	cm
Day 5	cm

How long will it be until the water is all gone?

5

Use your ruler to measure the length of each side of this triangle to the nearest $\frac{1}{2}$ cm:

A. _____ cm



C. _____ cm

B. _____ cm

The perimeter of the triangle: _____ cm

6

1 meter is 1,000 centimeters (1 m = 1,000 cm)

Fill in the blanks:

A. 3 m = _____cm

B. _____ m = 4,000 cm

C. 5 m = _____ cm

D. 50 m _____ cm

E. _____ m = 7,000 cm

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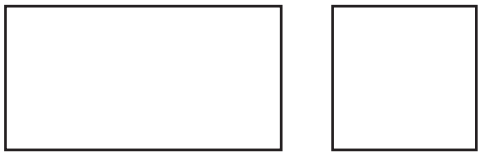
CYCLE 17

Name _____ Date _____

7



Write one property that that the two figures have in common:

Write one property that is different between the two figures:

8

A fraction can be less than 1, such as $\frac{1}{2}$; can be equal to 1, such as $\frac{2}{2}$; or can be greater than 1, such as $\frac{3}{2}$.

A. Write a fraction that is less than 1:

B. Write a fraction that is equal to 1:

C. Write a fraction that is greater than 1:

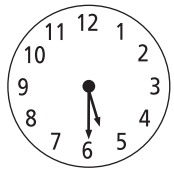
9

Amy bought a book for $5.25 and a set of markers for $1.25 and paid $.50 for tax. She paid with a $10 bill. The salesperson gave her $2.90 in change. Is the change correct? _____
Explain:

10

Write the time in two ways:

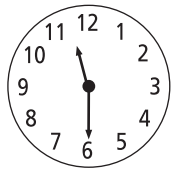
A.



_____ : _____

Half past _____

B.



_____ : _____

Half past _____

11

A. The quotient of 179 ÷ 2 is about:

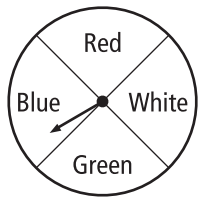
- **a.** 9
- **b.** 90
- **c.** 900

B. The quotient of 178 ÷ 3 is about:

- **a.** 6
- b. 60
- c. 600

12

A. What is the fraction of red and white in the circle? _____



B. What is probability of the spinner landing on red or white? _____

C. What is the fraction of white and blue in the circle? _____

D. What is the probability of the spinner landing on white or blue? _____

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CYCLE 18

Name _____ Date _____

1

A.

$$\begin{array}{r} 3{,}347 \\ +\ 3{,}497 \\ \hline \end{array} \qquad \begin{array}{r} 6{,}776 \\ -\ 4{,}661 \\ \hline \end{array}$$

B.

$7 \times 4 =$ ___

$4 \times 7 =$ ___

$28 \div 4 =$ ___

$28 \div 7 =$ ___

C.

$5 \times 8 =$ ___

$8 \times 5 =$ ___

$40 \div 5 =$ ___

$40 \div 8 =$ ___

2

A. Fill out the 3 other family facts for $2 \times 7 = 14$:

_____

_____

_____

B. Fill out the 3 other family facts for $4 \times 6 = 24$:

_____

_____

_____

3

Here are the results of a baseball game.

Name	Home Runs
Jim	5
John	0
Mary	3
Bill	2
Suzy	4

A. Who would be the best player to choose for your team? _____

B. Who would be the third-best player to choose for your team? _____

4

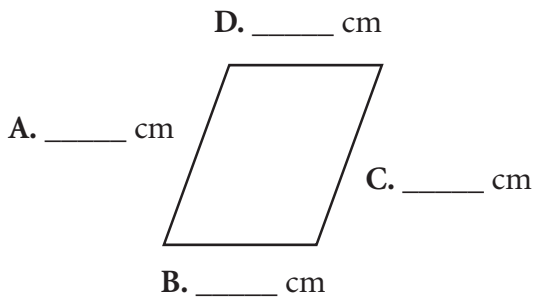
The water in a pitcher is 10 inches deep. Each week, 1.5 inches of water evaporates from the pitcher. Fill in the table:

Weeks	Height of Water in the Glass
Starting	10.0 inches
End of 1st week	8.5 inches
End of 2nd week	inches
End of 3rd week	inches
End of 4th week	inches
End of 5th week	inches

How long will it be until the water is all gone?

5

Use your ruler to measure the length of each side of this parallelogram to the nearest $\frac{1}{2}$ cm:



The perimeter of the parallelogram: ____ cm

6

1 meter is 1,000 centimeters (1 m = 1,000 cm)

Fill in the blanks:

A. 10 m = _____ cm

B. _____ m = 5,000 cm

C. 15 m = _____ cm

D. 16 m = _____ cm

E. _____ m = 11,000 cm

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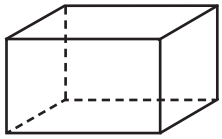
CYCLE 18

Name _____ Date _____

7



Write one property that that the two figures have in common:

Write one property that is different between the two figures:

8

A. Write a fraction that is less than 1, and draw a picture that illustrates the fraction:

B. Write a fraction that is equal to 1, and draw a picture of the fraction:

C. Write a fraction that is greater than 1, and draw a picture of the fraction:

9

Amy bought a book for $4.20 and a set of markers for $1.20 and paid $.27 for tax. She paid with a $10 bill. The salesperson gave her $3.43 in change. Is the change correct? _____
Explain:

10

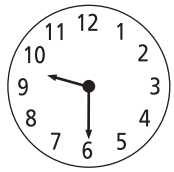
Write the time in two ways:

A.

_____ : _____

Half past _____

B.



_____ : _____

Half past _____

11

A. The quotient of 139 ÷ 2 is about:

- **a.** 7
- **b.** 70
- **c.** 700

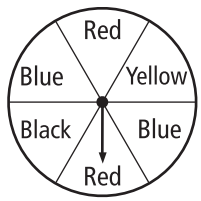
B. The quotient of 239 ÷ 3 is about:

- **a.** 8
- **b.** 80
- **c.** 800

12

A. What is the fraction of red in the circle?

_____



B. What is probability of the spinner landing on red?

_____

C. What is the fraction of black in the circle?

_____

D. What is the probability of the spinner landing on black? _____

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CYCLE 19

Name _____ Date _____

1

A.

$$\begin{array}{r} 7{,}447 \\ +\ 4{,}497 \\ \hline \end{array} \qquad \begin{array}{r} 5{,}775 \\ -\ 4{,}561 \\ \hline \end{array}$$

B.

$6 \times 6 =$ ___

$36 \div 6 =$ ___

C.

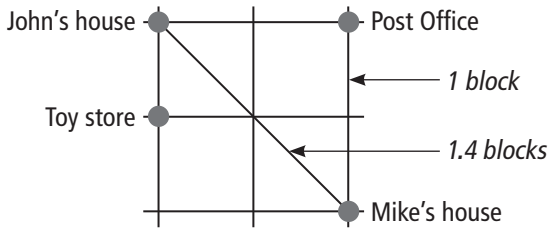
$7 \times 7 =$ ___

$49 \div 7 =$ ___

2

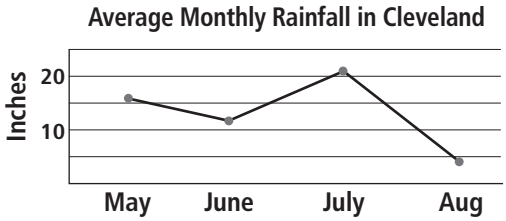
Mike wants to visit the toy store, post office, and John's house. He wants the shortest route that will allow him to visit each place, in no particular order, starting from his house and returning to his house. How many blocks does he take? _____

Each diagonal distance is 1.4 blocks.



3

Use the line graph to answer the questions below.



True or false?

A. It usually rains more in August than in June.

B. It usually rains the most in July.

4

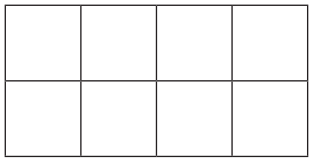
Jim owns a dog that eats 3 pounds of food each day. Complete the table:

Days	Dog Food Consumed
Day 1	3 pounds
Day 2	6 pounds
Day 3	pounds
Day 4	pounds
Day 5	pounds

How long will a 60-pound bag of dog food last for Jim's dog?

5

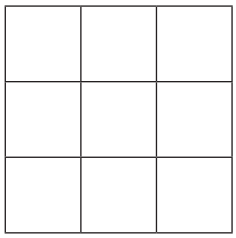
Write the area and perimeter of the figures: ☐ = 1 cm^2



A.

Area = _____ cm^2

Perimeter = _____ cm



B.

Area = _____ cm^2

Perimeter = _____ cm

6

1 dime = 1 tenth of a dollar

Fill in the blanks:

A. 2 dimes = _____ tenths of a dollar

B. 6 dimes = _____ tenths of a dollar

C. 8 dimes = 8 _____ of a dollar

D. 9 dimes = 9 _____ of a dollar

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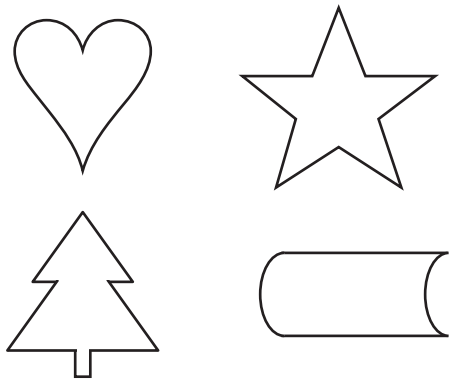
CYCLE 19

Name _____ Date _____

7

Draw a line of symmetry for each of the figures:



8

A. Write a fraction that is less than one, and draw a picture that illustrates the fraction:

B. Write a fraction that is equal to one, and draw a picture that illustrates the fraction:

C. Write a fraction that is greater than one, and draw a picture that illustrates the fraction

9

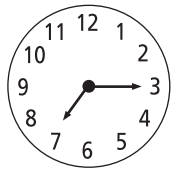
A. Bill has 21 pennies, 4 nickels, 20 dimes, and 4 quarters. How much money does Bill have? _____ Show your work:

B. Bill has 35 pennies, 3 nickels, 5 dimes, and 4 quarters. How much money does Bill have? _____ Show your work:

10

Write the time in two ways:

A.



_____ : _____

_____ minutes after _____

B.

_____ : _____

_____ minutes after _____

11

A. The quotient of 19 ÷ 6 is about:

a. 2

b. 3

c. 4

B. The quotient of 182 ÷ 6 is about:

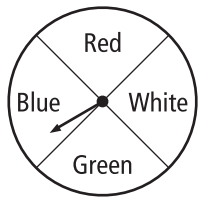
a. 3

b. 30

c. 300

12

A. What is the fraction of red and white together in the circle?



B. What is probability of the spinner landing on red or white?

C. What is the fraction of the white and blue together in the circle?

D. What is the probability of the spinner landing on white or blue?

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CYCLE 20

Name _____ Date _____

1

A.

$$\begin{array}{r} 3{,}347 \\ +\ 3{,}497 \\ \hline \end{array} \qquad \begin{array}{r} 6{,}776 \\ -\ 4{,}661 \\ \hline \end{array}$$

B.

$8 \times 8 =$ ___

$64 \div 8 =$ ___

C.

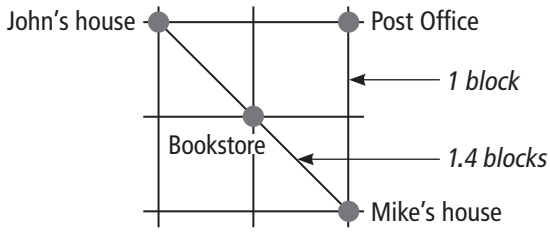
$9 \times 9 =$ ___

$91 \div 9 =$ ___

2

Mike wants to visit the bookstore, post office, and John's house. He wants the shortest route that will allow him to visit each place, in no particular order, starting from his house and returning to his house. How many blocks does he take? _____

Each diagonal distance is 1.4 blocks.



3

Here are the results of a survey.

Our Favorite Activities	
Dance	𝍸
Football	𝍸 𝍸 III
Bicycling	𝍸 I
Karate	II

A. What is the most popular activity?

B. How many students said it was their favorite?

4

Wanda owns a bear that eats 6 pounds of food each day. Complete the table:

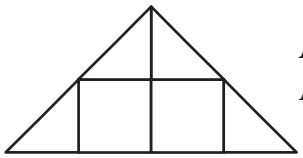
Days	Bear Food Consumed
Day 1	6 pounds
Day 2	12 pounds
Day 3	pounds
Day 4	pounds
Day 5	pounds

How long will a 30-pound bag of bear food last for Wanda?

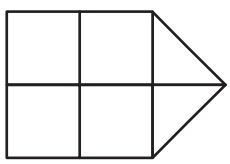
5

$= 1\ \text{cm}^2$ $= \frac{1}{2}\ \text{cm}^2$

Write the area of the figures:



A.
Area = _____ cm^2



B.
Area = _____ cm^2

6

1 penny = 1-hundredth of a dollar.

Fill in the blanks:

A. 2 pennies = ____ hundredths of a dollar

B. 7 pennies = ____ hundredths of a dollar

C. 11 pennies = ____ hundredths of a dollar

D. 12 pennies = 12 _____ of a dollar

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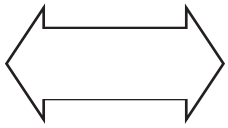
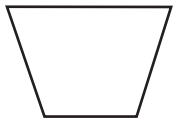
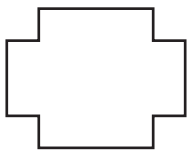
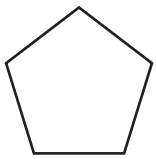
CYCLE 20

Name _____ Date _____

7

Draw a line of symmetry for each of the figures:

8

A. Write a fraction that is less than 1, and draw a picture that illustrates the fraction:

B. Write a fraction that is equal to 1, and draw a picture that illustrates the fraction:

C. Write a fraction that is greater than 1, and draw a picture that illustrates the fraction

9

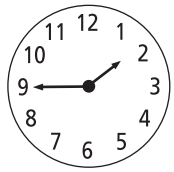
A. Bill has 30 pennies, 2 nickels, 5 dimes, and 3 quarters. How much money does Bill have? _____ Show your work:

B. Bill has 24 pennies, 5 nickels, 2 dimes, and 2 quarters. How much money does Bill have? _____ Show your work:

10

Write the time in two ways:

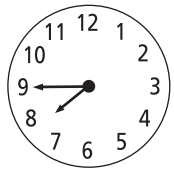
A.



_____ : _____

_____ minutes before _____

B.



_____ : _____

_____ minutes before _____

11

11

A. The quotient of 153 ÷ 5 is about:

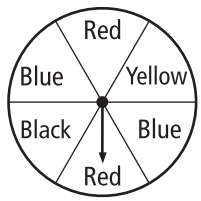
- **a.** 3
- **b.** 30
- **c.** 300

B. The quotient of 149 ÷ 5 is about:

- **a.** 3
- **b.** 30
- **c.** 300

12

A. What is the fraction of red and yellow together in the circle?



B. What is probability of the spinner landing on red or yellow?

C. What is the probability of the spinner landing on black or red?

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CYCLE 21

Name _____ Date _____

1

A.

$$\begin{array}{r} 6{,}337 \\ +\ 6{,}497 \\ \hline \end{array} \qquad \begin{array}{r} 2{,}744 \\ -\ 1{,}261 \\ \hline \end{array}$$

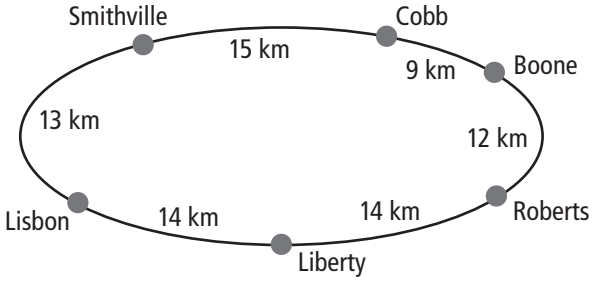
B.

$$\begin{array}{r} 10 \\ \times\ 7 \\ \hline \end{array} \qquad \begin{array}{r} 3 \\ \times\ 7 \\ \hline \end{array} \qquad \begin{array}{r} 13 \\ \times\ 7 \\ \hline \end{array}$$

C. $5\overline{)20}$ $5\overline{)200}$

2

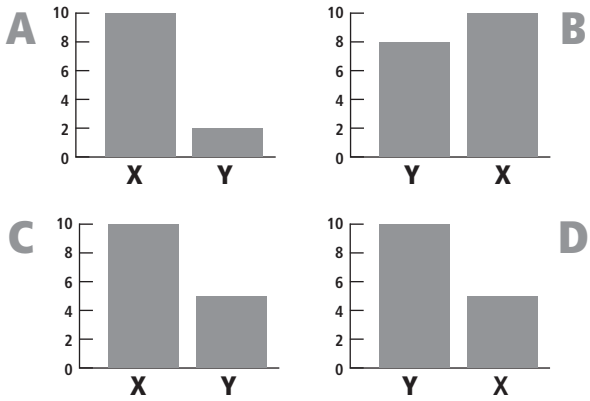
A. What is the shortest distance from Lisbon to Boone on this road map? _____



B. What is the shortest distance from Lisbon to Roberts on the road map? _____

3

Company X sold twice as much merchandise as Company Y. Which bar graph below best represents this situation?



4

A. If you drive 70 miles per hour, how many total miles would you have traveled in each hour of your trip? Complete the table:

Driving hours	1	2	3	4	5
Distance traveled in miles	70				

B. How many driving hours do you need to travel 140 miles?
_____ hours for 140 miles.

5

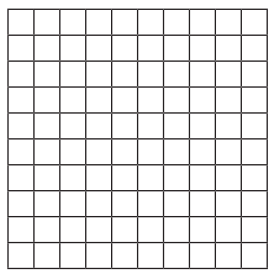
A. Sam is building a fence around his rectangular garden as shown below.

How many feet of fencing does Sam need? _____

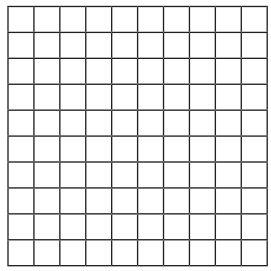
B. Sam is building a fence around his rectangular-shaped dog pen. The length is 10 meters and width is 20 meters. What is the perimeter of the dog pen? _____

6

A. Color in 12 hundredths of this picture.



B. Color in 30 hundredths of this picture.



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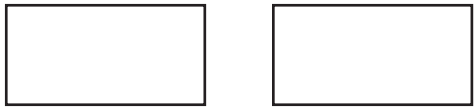
CYCLE 21

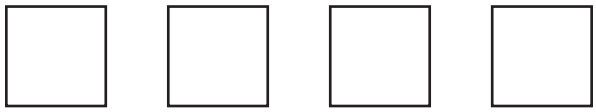
Name _____ Date _____

7

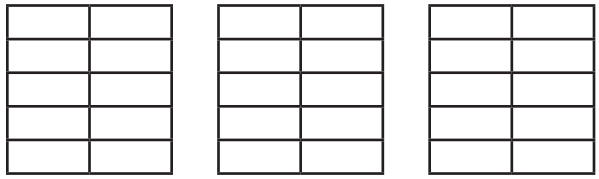
A. Draw as many lines of symmetry as you can for the rectangles:



B. Draw as many lines of symmetry as you can for the squares:



8



A. Shade $\frac{7}{10}$ of the first rectangle, $\frac{1}{2}$ of the second rectangle, and $\frac{2}{5}$ of the third rectangle.

B. Write the three fractions ($\frac{7}{10}$, $\frac{1}{2}$, $\frac{2}{5}$) in order from largest to smallest:

9

A. A carnival ride ticket costs $.25. How much will it cost to buy 6 tickets?

B. A carnival ride ticket costs $.50. How much will it cost to buy 6 tickets?

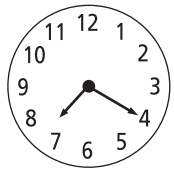
10

Write the time for the digital clock as shown on the analog clock:

A.

_____ : _____

B.



_____ : _____

11

Round each of the numbers to the nearest ten.

56	
53	
567	
343	

12

If you arrange two coins by heads and tails, there are 4 possible combinations:
HH (2 heads), HT (1 heads, 1 tails),
TH (1 tails, 1 heads), and TT (2 tails).

A. If you toss 2 coins at the same time, what is your chance of getting 2 heads?

B. If you toss 2 coins, what is your chance of getting 1 heads and 1 tails?

C. What is the chance of getting 2 tails if you toss 2 coins?

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CYCLE 22

Name _____ Date _____

1

A.

$$\begin{array}{r} 3{,}355 \\ +\ 3{,}497 \\ \hline \end{array} \qquad \begin{array}{r} 6{,}733 \\ -\ 4{,}661 \\ \hline \end{array}$$

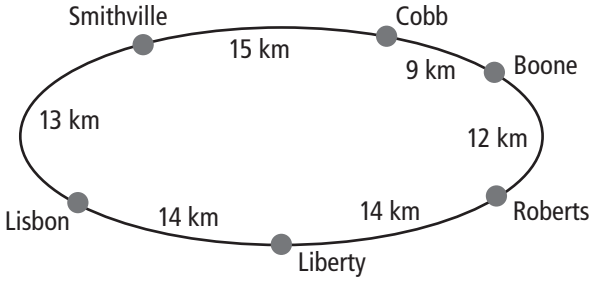
B.

$$\begin{array}{r} 10 \\ \times\ 9 \\ \hline \end{array} \qquad \begin{array}{r} 3 \\ \times\ 9 \\ \hline \end{array} \qquad \begin{array}{r} 13 \\ \times\ 9 \\ \hline \end{array}$$

C. $9\overline{)36}$ $9\overline{)360}$

2

A. What is the shortest distance from Cobb to Liberty on the road map? _____



B. What is the shortest distance from Roberts to Smithville on the road map? _____

3

This pictograph shows the number of computers Jim fixed last week. Construct a bar graph that represents the same information as the pictograph.

Day	Computers
Mon	🖳🖳
Tues	🖳
Wed	🖳🖳🖳
Thurs	🖳🖳

Each 🖳 equals 5 computers.

4

A. If you drive 50 miles per hour, how many total miles would you have traveled in each hour of your trip? Complete the table:

Driving hours	1	2	3	4	5
Distance traveled in miles	50				

B. How many driving hours do you need to travel 150 miles?
_____ hours for 150 miles.

5

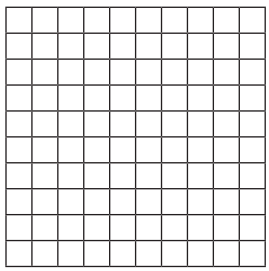
A. Sam is building a fence around his rectangular garden as shown below.

How many feet of fencing does Sam need?

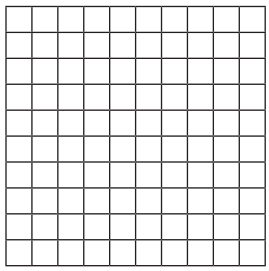
B. Sam is building a fence around his rectangular-shaped dog pen. The length is 12 meters and width is 15 meters. What is the perimeter of the dog pen?

6

A. Color in 5 tenths of this picture.



B. Color in 5 hundredths of this picture.



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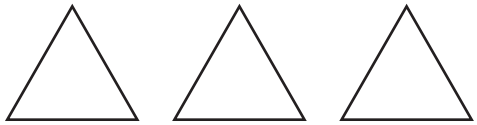
CYCLE 22

Name _____ Date _____

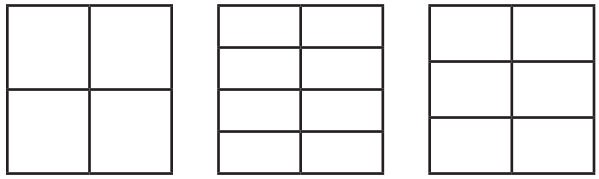
7

A. Draw as many lines of symmetry as you can for these triangles:



B. Draw 4 lines of symmetry for these hexagons:

8



A. Shade $\frac{1}{4}$ of the first rectangle, $\frac{3}{8}$ of the second rectangle, and $\frac{2}{6}$ of the third rectangle.

B. Write the three fractions ($\frac{1}{4}$, $\frac{3}{8}$, $\frac{2}{6}$) in order from largest to smallest:

9

A. A carnival ride ticket costs $1.25. How much will it cost to buy 4 tickets?

B. A carnival ride ticket costs $2.10. How much will it cost to buy 3 tickets?

10

Write the time for the digital clock as shown on the analog clock:

A.

_____ : _____

B.

_____ : _____

11

Round each of the numbers to the nearest hundred.

256	
243	
567	
343	

12

A. A gumball machine has the following gumballs: 10 red, 4 white, 6 orange. If you put in a quarter and turn the handle for one gumball, what is the probability that you will get a red gumball?

a. $\frac{10}{20}$ **b.** $\frac{4}{20}$ **c.** $\frac{6}{20}$

B. What is the probability that you will get a white gumball?

a. $\frac{10}{20}$ **b.** $\frac{4}{20}$ **c.** $\frac{6}{20}$

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CYCLE 23

Name _____ Date _____

1

A.

$$\begin{array}{r} 5{,}227 \\ +\ 5{,}497 \\ \hline \end{array} \qquad \begin{array}{r} 6{,}552 \\ -\ 5{,}261 \\ \hline \end{array}$$

B.

$$\begin{array}{r} 20 \\ \times\ 6 \\ \hline \end{array} \qquad \begin{array}{r} 3 \\ \times\ 6 \\ \hline \end{array} \qquad \begin{array}{r} 23 \\ \times\ 6 \\ \hline \end{array}$$

C. $8\overline{)40}$ $8\overline{)400}$

2

$2 \times 3 = 6$ has 3 other family facts:
$3 \times 2 = 6$, $6 \div 2 = 3$, and $6 \div 3 = 2$.

Write 3 family facts for $5 \times 6 = 30$:

_____

_____

_____

3

This table gives a company's number of employees for the last few years. Construct a bar graph with the given information:

Year	Number of Employees
2000	10
2001	15
2002	15
2003	15
2004	20
2005	20

4

In a number sentence using > or < symbols, there can be many correct answers.

A. 5 + _____ < 12

Circle all numbers that can go in the blank for the number sentence above.

0, 1, 10, 4, 9, 5, 8

B. 7 + _____ < 14

Circle all numbers that can go in the blank for the number sentence above.

0, 2, 10, 4, 9, 5, 8

5

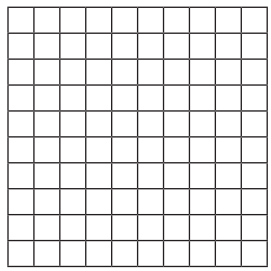
The height of this square is 1 cm and the width is 1 cm. This square is called "1 square centimeter." Use your ruler to construct a rectangle with a height of 1 cm and a width of 4 cm.

A. Area of the rectangle = _____ cm^2

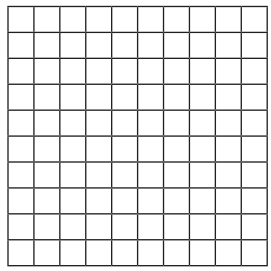
B. Perimeter of the rectangle = _____cm

6

A. Color in 4 tenths of this picture.



B. Color in 4 hundredths of this picture.



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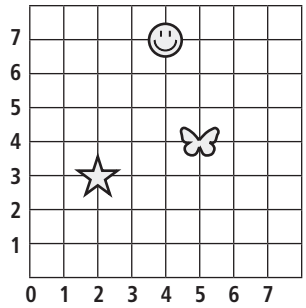
CYCLE 23

Name _____ Date _____

7

Name the location of each object on this grid.

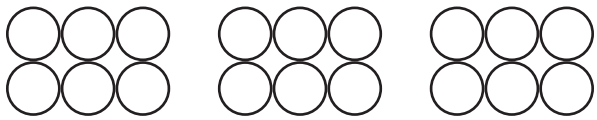


smiley face (___ , ___)

butterfly (____ , ___)

star (____ , ____)

8



A. Shade $\frac{1}{2}$ of the first group, $\frac{1}{3}$ of the second group, and $\frac{1}{6}$ of the third group.

B. Write the three fractions ($\frac{1}{2}, \frac{1}{3}, \frac{1}{6}$) in order from largest to smallest:

9

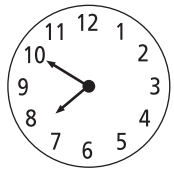
A. Jerry worked after school and earned $2.40 each day for 3 days. How much did Jerry earn altogether?

B. Jerry worked after school and earned $1.50 each day for 4 days. How much did Jerry earn altogether?

10

Write the time for the digital clock as shown on the analog clock:

A.



_____ : _____

B.

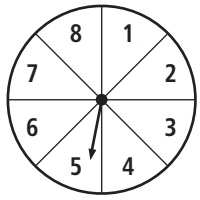
_____ : _____

11

Round each of the numbers to the nearest ten.

546	
533	
67	
43	

12



You and your brother are playing a game with a spinner. Your brother wins if the arrow lands on any number smaller than 6 on the spinner. You win if the arrow lands on any number larger than 6. Is the game fair?

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CYCLE 24

Name _____ Date _____

1

A.

$$\begin{array}{r} 6{,}444 \\ +\ 4{,}497 \\ \hline \end{array} \qquad \begin{array}{r} 5{,}777 \\ -\ 4{,}591 \\ \hline \end{array}$$

B.

$$\begin{array}{r} 50 \\ \times\ 5 \\ \hline \end{array} \qquad \begin{array}{r} 2 \\ \times\ 5 \\ \hline \end{array} \qquad \begin{array}{r} 52 \\ \times\ 5 \\ \hline \end{array}$$

C. $7\overline{)21}$ $7\overline{)217}$

2

A. Write 3 family facts for $6 \times 7 = K$:

_____

_____

_____

B. Write 3 family facts for $16 \times M = 32$:

_____

_____

_____

3

Day	Computers
Mon	🖳 🖳
Tues	🖳
Wed	🖳 🖳 🖳
Thurs	🖳 🖳

Each 🖳 equals 5 computers.

A. If a bar graph displayed this same data, then the smallest bar would be that of: _____

B. If a bar graph displayed this same data, then the longest bar would be that of: _____

4

In a number sentence using > or < symbols, there can be many correct answers.

5 + _____ > 12

A. Circle all numbers that can go in the blank for the number sentence above.

(0, 2, 10, 4, 9, 5, 8)

7 + _____ > 14

B. Circle all numbers that can go in the blank for the number sentence above.

(0, 2, 10, 4, 9, 5, 8)

5

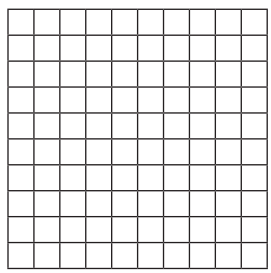
Use your ruler to construct a rectangle with a height of 2 cm and a width of 3 cm.

A. Area of the rectangle = _____ cm^2

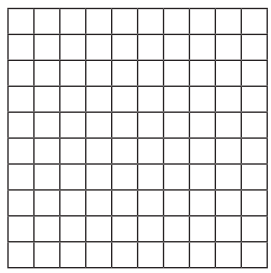
B. Perimeter of the rectangle = _____ cm

6

A. Color in 7 tenths of this picture.



B. Color in 7 hundredths of this picture.



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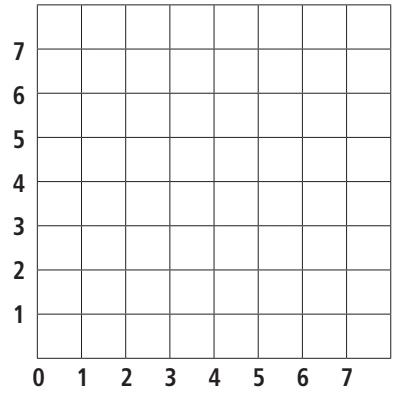
CYCLE 24

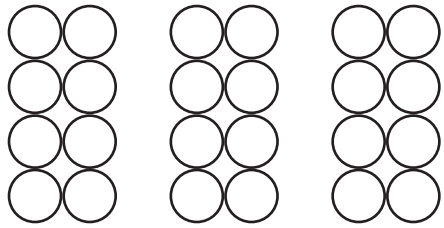
Name _____ Date _____

7

Draw lines connecting the points (2,1), (2,5), (6,1), and (6,5).



8



A. Shade $\frac{1}{2}$ of the first group, $\frac{1}{4}$ of the second group, and $\frac{3}{8}$ of the third group.

B. Write the three fractions ($\frac{1}{2}, \frac{1}{4}, \frac{3}{8}$) in order from largest to smallest:

9

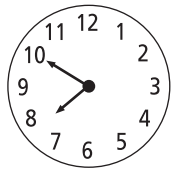
A. Lakisha dog-sits after school, earning $2.50 each day. How many days does she need to dog-sit to make $10?

B. Lakisha dog-sat after school, earning $2.50 each day for 6 days. How much did Lakisha earn altogether?

10

Write the time for the digital clock as shown on the analog clock:

A.



_____ : _____

B.

_____ : _____

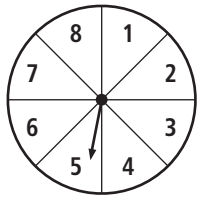
11

Round each of the numbers to the nearest ten.

566	
563	
567	
3,443	

12

You and your brother are playing a game with a spinner. Your brother wins if the arrow lands on any number smaller than 5 on the spinner. You win if the arrow lands on any number larger than 5. Is the game fair?



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CYCLE 25

Name _____ Date _____

1

A.

$$\begin{array}{r} 5{,}847 \\ +\ 4{,}666 \\ \hline \end{array} \qquad \begin{array}{r} 6{,}772 \\ -1{,}555 \\ \hline \end{array}$$

B.

$$\begin{array}{r} 30 \\ \times\ 8 \\ \hline \end{array} \qquad \begin{array}{r} 5 \\ \times\ 8 \\ \hline \end{array} \qquad \begin{array}{r} 35 \\ \times\ 8 \\ \hline \end{array}$$

C. $6\overline{)36}$ $6\overline{)372}$

2

A. Mike sold 480 tickets. Each ticket cost $9.75. Which number sentence shows how to find the total cost of the tickets?

a. 480 + 9.75 =

b. 480 – 9.75 =

c. 480 × 9.75 =

d. 480 ÷ 9.75 =

B. Phillip sold 20 tickets. Each ticket cost $9.00. How much money did Phillip make by selling the tickets?

3

Year	Profits
1999	$16,000
2000	$8,000
2001	$10,000
2002	$5,000

A. If a bar graph was constructed using this same data, which year would have the longest bar? _____

B. If a bar graph was constructed using this same data, which year would have the shortest bar? _____

4

In a number sentence using > or < symbols, there can be many correct answers.

10 – _____ < 5

A. Circle all numbers that can go in the blank for the number sentence above.

(0, 2, 10, 4, 9, 5, 8)

10 – _____ > 5

B. Circle all numbers that can go in the blank for the number sentence above.

(0, 2, 10, 4, 9, 5, 8)

5

Get a scale with grams and kilograms from your teacher. Measure the weight of the following objects and record the weights:

A. a pencil = _____ g

B. a gallon of water = _____ kg

C. a paper clip = _____ g

D. my math book = _____ g

6

Example:

537 = 5 × 100 plus
3 × 10 plus
7 × 1

Write the following problem in the same way:

823 = _____ × _____ plus
_____ × _____ plus
_____ × _____

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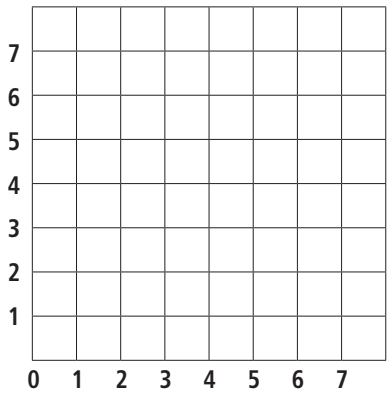
CYCLE 25

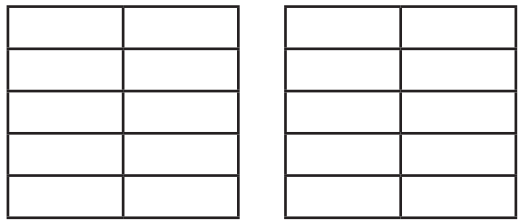
Name _____ Date _____

7

Draw lines connecting the points: (3,1), (3,5), (7,1), and (7,5).



8



A. Shade $\frac{2}{10}$ of the first rectangle.

$\frac{2}{10}$ = _____ (decimal fraction)

B. Shade $\frac{3}{10}$ of the second rectangle.

$\frac{3}{10}$ = _____ (decimal fraction)

9

A. Frank has 6 quarters, 6 dimes, 6 nickels, and 6 pennies. Does he have enough for a football ticket for $3.00?

B. A toy costs $4.89 and you pay with a $10 bill. About how much money would you receive for change?

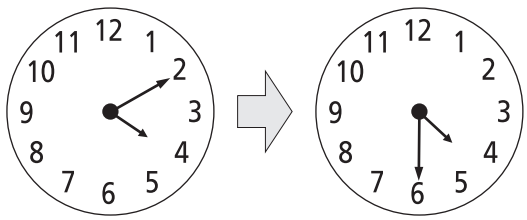
a. about $5

b. about $6

c. about $4

d. about $8

10



The clocks show the beginning and ending time for Maureen's soccer practice. How long did she practice?

_____ hour(s) _____ minutes

11

Jane goes to a school book fair with $20 to spend. She wants to buy books that cost $5.10, $4.30, $3.60, and $5.10. Does she have enough money to buy the books? _____

Show your work using the estimation method:

12

Your sock drawer contains 30 white socks and 10 black socks.

A. Predict how likely you are to get a white sock when you pull out one without looking.

B. Predict how likely you are to get a black sock when you pull out one without looking.

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CYCLE 26

Name _____ Date _____

1

A.

$$\begin{array}{r} 7{,}747 \\ +\ 2{,}888 \\ \hline \end{array} \qquad \begin{array}{r} 6{,}772 \\ -\ 4{,}444 \\ \hline \end{array}$$

B.

$$\begin{array}{r} 40 \\ \times\ 3 \\ \hline \end{array} \qquad \begin{array}{r} 6 \\ \times\ 3 \\ \hline \end{array} \qquad \begin{array}{r} 46 \\ \times\ 3 \\ \hline \end{array}$$

C. $3\overline{)24}$ $3\overline{)252}$

2

A. Grant sold 674 tickets. Each ticket cost $9.75. Which number sentence shows how to find the total cost of the tickets?

a. 674 + 9.75 =

b. 674 – 9.75 =

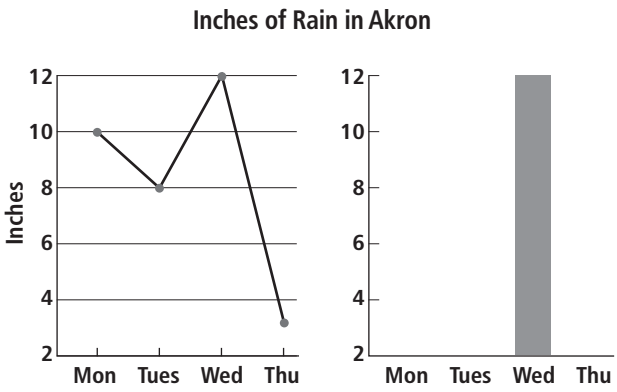
c. 674 × 9.75 =

d. 674 ÷ 9.75 =

B. Grant sold 15 tickets. Each ticket cost $9.00. How much money did Grant make by selling the tickets?

3

Complete the bar graph with the information from the line graph.



4

In a number sentence using > or < symbols, there can be many correct answers.

10 – _____ < 3

A. Circle all numbers that can go in the blank for the number sentence above.

(0, 2, 10, 4, 9, 5, 8)

10 – _____ > 3

B. Circle all numbers that can go in the blank for the number sentence above.

(0, 2, 10, 4, 9, 5, 8)

5

Get a scale with grams and kilograms from your teacher. Measure various objects and record their weights here:

A. More than 1 kg:

_____ = _____ kg

_____ = _____ kg

_____ = _____ kg

B. Less than 1 kg:

_____ = _____ g

_____ = _____ g

6

537 = 5 × 100 plus
3 × 10 plus
7 × 1

Write the following problem in the same way:

830 = _____ × _____ plus
_____ × _____ plus
_____ × _____

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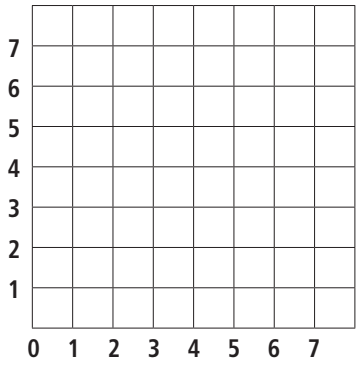
CYCLE 26

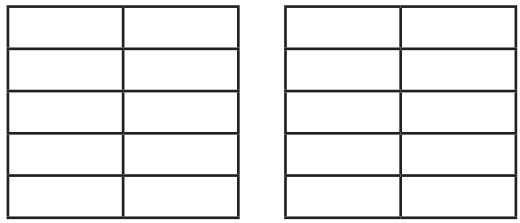
Name _____ Date _____

7

If you want to design a square on the grid, what pair of numbers is missing? Draw lines connecting the points (1,2), (1,4), and (3,2), and find the missing point: (____, ____)



8



A. Shade $\frac{6}{10}$ of the first rectangle.

B. Shade 0.7 of the second rectangle.

C. Circle the correct symbol that makes the number sentence true: $\frac{6}{10}$ (< > =) 0.7

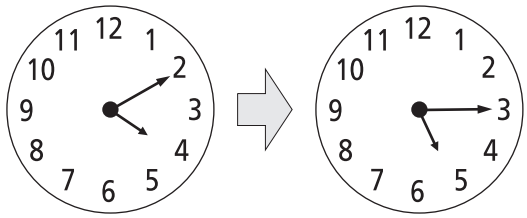
9

Antonio wants to buy a CD player. The CD player costs $50. He has $5 saved, and he can save $5 a week.

How many weeks will it take Antonio to save enough money to buy the CD player? _____

Show your work:

10



The clocks show the beginning and ending time for John's piano lesson. How much time did John spend in his lesson?

_____ hour(s) _____ minutes

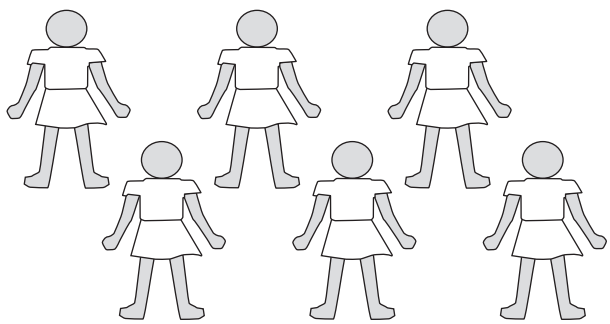
11

Rashard and his family went to a baseball game. Rashard wanted to buy some souvenirs. Here is what they cost. Round the prices to the nearest $1:

Souvenir	Cost	Rounded to $1
Baseball cap	$10.50	
Foam "#1" hand	$9.30	
Baseball jersey	$21.80	
Poster	$5.60	

12

Wanda has 1 white shirt and 1 red shirt. She has 1 white skirt, 1 red skirt, and 1 yellow skirt. How many combinations of shirts and skirts can she wear? _____ Color the combination of the shirts and skirts:



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CYCLE 27

Name _____ Date _____

1

A.

$$\begin{array}{r} 6{,}647 \\ +\ 6{,}497 \\ \hline \end{array} \qquad \begin{array}{r} 2{,}772 \\ -\ 1{,}261 \\ \hline \end{array}$$

B.

$$\begin{array}{r} 60 \\ \times\ 4 \\ \hline \end{array} \qquad \begin{array}{r} 5 \\ \times\ 4 \\ \hline \end{array} \qquad \begin{array}{r} 65 \\ \times\ 4 \\ \hline \end{array}$$

C. $4\overline{)24}$ $4\overline{)248}$

2

A. Mike collected $1,287 by selling tickets. Each ticket was $8.25. Which number sentence would help Mike find out how many tickets he sold?

a. 1,287 + 8.25 =

b. 1,287 – 8.25 =

c. 1,287 × 8.25 =

d. 1,287 ÷ 8.25 =

B. Mike collected $42 by selling tickets. Each ticket is $6.00. How many tickets did he sell?

3

Complete the pictograph using the information on the table.

Name	Hours
Bob	3
Frank	9
Suzy	6

	Hours at Work
Frank	
Bob	
Suzy	

Each 🕒 equals 3 hours.

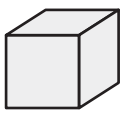
4

Insert the correct sign (>, <, or =) to make each number sentence true.

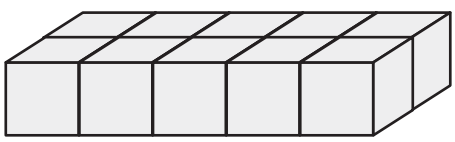
4 + 5 ( ) 10
20 – 5 ( ) 15
4 × 5 ( ) 30
3 × 5 ( ) 12
5 ÷ 5 ( ) 2
10 + 5 ( ) 13
6 × 5 ( ) 40

5

The small cube is 1 cm^3, or "cubic centimeter."



How many cubic centimeters are there in this figure? _____ cm^3



6

Fill in the blanks so that the statements are correct.

A. _____ + _____ = 16

B. _____ – _____ = 21

C. _____ × _____ = 24

D. _____ ÷ _____ = 4

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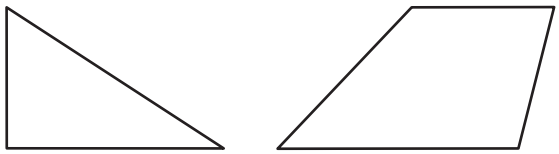
CYCLE 27

Name _____ Date _____

7



In what way are these two shapes alike?

In what way are these two shapes different?

8

A. A pizza was divided into sixths. Ling ate $\frac{1}{6}$ of the pizza. Sam ate $\frac{1}{6}$ of the pizza. How much of the pizza was left?

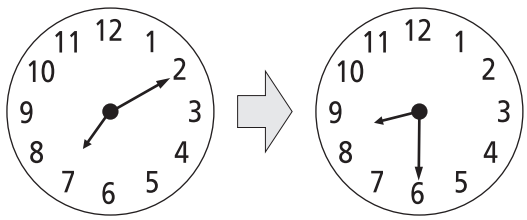
B. A pizza was divided into eighths. Ling ate $\frac{1}{8}$ of the pizza. Sam ate $\frac{3}{8}$ of the pizza. How much of the pizza was left?

9

Mario bought 2 items and paid with a $5 bill. He received 2 $1 bills and 2 quarters in change. What are the 2 items Mario could have bought? Circle the items in the table.

crayon	$2.00
notebook	$1.50
marker	$0.50 each
poster	$5.00 each
card	$1.00 each

10



The clocks show the beginning and ending time of your reading lesson. How long did you read?

_____ hour(s) _____ minutes

11

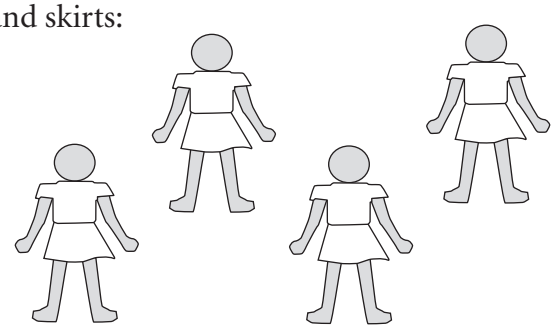
Rashard and his family went to a baseball game. Rashard wanted to buy some souvenirs. Here is what they cost. Round the prices to the nearest $10:

Souvenir	Cost	Rounded to $10
Baseball cap	$16.50	
Foam "#1" hand	$7.70	
Baseball jersey	$26.40	
Poster	$5.60	

12

Wanda likes white shirts and skirts and black shirts and skirts. How many different outfits can she have with 1 white skirt, 1 white shirt, 1 black skirt, and 1 black shirt? _____

Color the combinations of the shirts and skirts:



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CYCLE 28

Name _____ Date _____

1

A.

$$\begin{array}{r} 3{,}345 \\ +\ 3{,}445 \\ \hline \end{array} \qquad \begin{array}{r} 6{,}745 \\ -\ 4{,}655 \\ \hline \end{array}$$

B.

$$\begin{array}{r} 80 \\ \times\ 7 \\ \hline \end{array} \qquad \begin{array}{r} 6 \\ \times\ 7 \\ \hline \end{array} \qquad \begin{array}{r} 86 \\ \times\ 7 \\ \hline \end{array}$$

C. $5\overline{)45}$ $5\overline{)460}$

2

A. Mike collected $1,287 by selling tickets. Each ticket was $8.25. Which number sentence should Mike use to find out how many tickets he sold?

a. 1,287 + 8.25 =

b. 1,287 – 8.25 =

c. 1,287 × 8.25 =

d. 1,287 ÷ 8.25 =

B. Mike collected $81 by selling tickets. Each ticket is $9.00. How many tickets did he sell?

3

Construct a bar graph using the data on this pictograph:

Hours at Work	
Frank	🕒
Bob	🕒 🕒 🕒
Suzy	🕒 🕒

Each 🕒 equals 3 hours.

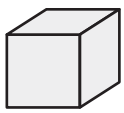
4

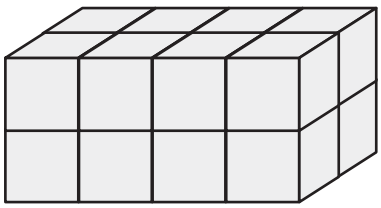
Insert the correct sign (>, <, or =) to make each number sentence true.

2 × 5 ( ) 10
20 – 15 ( ) 6
2 × 5 ( ) 12
2 × 6 ( ) 12
10 ÷ 5 ( ) 1
2 × 6 ( ) 13
3 × 7 ( ) 20

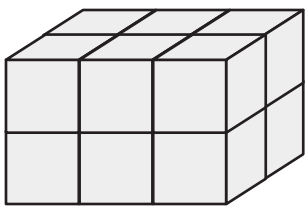
5

The small cube is 1 cm^3. Write how many cubic centimeters there are in these figures:





A. _____ cm^3



B. _____ cm^3

6

A. How many dimes do you need to make 200¢? _____ dimes

B. How many tens do you need to make 300? _____ tens

C. How many tens do you need to make 500? _____ tens

D. How many tens do you need to make 600? _____ tens

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CYCLE 28

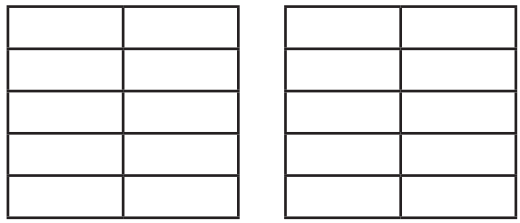
Name _____ Date _____

7

A. Jane placed a cylinder on a piece of paper. She traced around the bottom of the cylinder. What shape did she draw?

B. Jane placed a rectangular prism on a piece of paper. She traced around the bottom of the prism. What shape did she draw?

8



A. Shade $\frac{2}{10}$ of the first rectangle.

B. Shade 0.3 of the second rectangle.

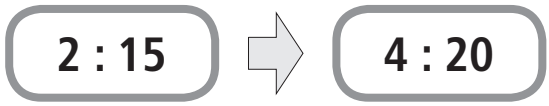
C. Circle the correct symbol: $\frac{2}{10}$ (< > =) 0.3

9

Sam bought 4 items and paid with a $10 bill. He received 3 quarters and 1 nickel in change. In the box below, circle the 4 items Sam might have bought.

crayon	$2.00
notebook	$1.20
marker	$0.50 each
poster	$5.00 each
card	$1.00 each

10



The clocks show the beginning and ending time of your reading. How long did you read?

_____ hour(s) _____ minutes

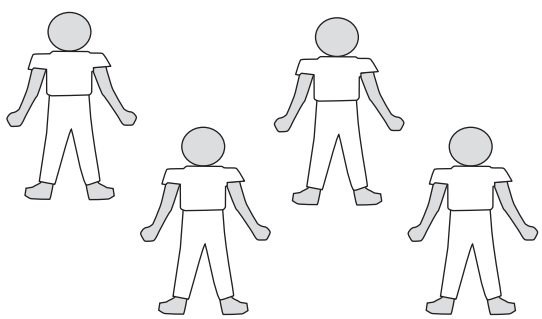
11

Rashard and his family went to a baseball game. Rashard wanted to buy some souvenirs. Here is what they cost. Round the prices to the nearest $1:

Souvenir	Cost	Rounded to $1
Baseball cap	$10.20	
Foam "#1" hand	$9.80	
Baseball jersey	$21.20	
Poster	$5.80	

12

Jim likes only red and blue. He has 1 pair of red pants and 1 pair of blue pants, as well as 1 red shirt and 1 blue shirt. How many different combinations of outfits can he have? _____ Color his clothing:



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CYCLE 29

Name _____ Date _____

1

A. $\begin{array}{r} 5{,}999 \\ +\ 5{,}497 \end{array}$ $\begin{array}{r} 6{,}736 \\ -\ 5{,}253 \end{array}$

B. $\begin{array}{r} 70 \\ \times\ 7 \end{array}$ $\begin{array}{r} 3 \\ \times\ 7 \end{array}$ $\begin{array}{r} 73 \\ \times\ 7 \end{array}$

C. $7\overline{)56}$ $7\overline{)574}$

2

A. Mike sold 786 tickets. Each ticket cost $9.75. Which number sentence shows how to find the total amount of money he collected for the tickets?

a. 786 + 9.75 =

b. 786 – 9.75 =

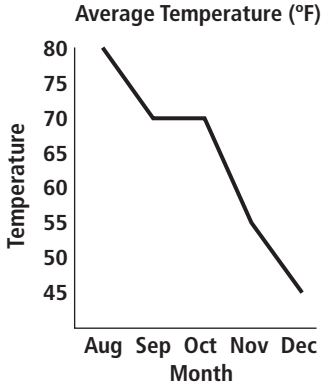
c. 786 × 9.75 =

d. 786 ÷ 9.75 =

B. Mike sold 21 tickets. Each ticket cost $5.00. How much money did Mike make by selling the tickets?

3

Complete the table using the information from the line graph.



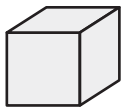
Month	Temperature
Aug	
Sep	
Oct	
Nov	
Dec	

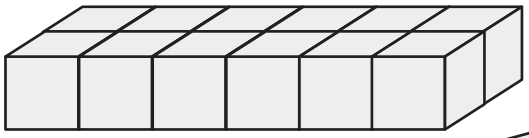
4

If you drive 50 miles per hour, how far would you travel in 1 hour? 2 hours? 3 hours? 4 hours? Make a table to show your answers.

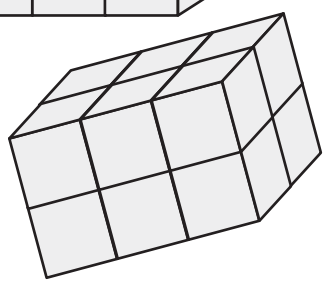
5

The small cube is 1 cm^3. How many cubic centimeters are there in these figures?





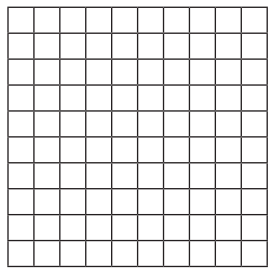
A. _____ cm^3



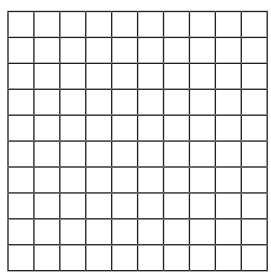
B. _____ cm^3

6

A. Color in 2 tenths of this picture.



B. Color in 2 hundredths of this picture.



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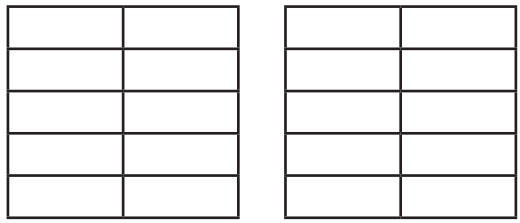
CYCLE 29

Name _____ Date _____

7

Using a ruler, draw the following figures: (A) an isosceles triangle; (B) a right triangle; (C) an acute triangle; and (D) an obtuse triangle.

8



A. Shade $\frac{8}{10}$ of the first rectangle.

B. Shade 0.8 of the second rectangle.

C. Circle the correct symbol that makes this number sentence true: $\frac{8}{10}$ (< > =) 0.8

9

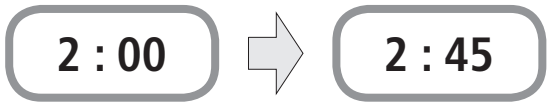
Jane has $9.00. What are two different ways she could spend her money if she wants to buy two items each time and not receive any change?

shorts	$7.40
socks	$2.50
shoes	$15.00
shirts	$6.50
cap	$1.60
dresses	$9.00
belts	$5.00

A.

B.

10



The clocks show the beginning and ending time of a movie. How long is the movie?

_____ hour(s) _____ minutes

11

A. New Star School has 3 third-grade classes. The greatest number of students allowed in a class is 30 and the least number of students allowed in a class is 15. Which could be the total number of students in the 3 third-grade classes?

a. 45 to 90 **c.** 40 to 70

b. 60 to 75 **d.** 50 to 80

B. The school has 4 fifth-grade classes. The greatest number of students allowed in a class is 25 and the least number of students allowed is 15. What could be the total number of fifth-grade students?

a. less than 60 **c.** 60 to 100

b. More than 100 **d.** 50 to 100

12

There are 4 marbles in each of 3 bags, shown below.

A. If you pick a marble without looking, with which bag do you have the probability of 1 of picking a black marble? _____

B. With which bag do you have the probability of 0 of picking a black marble? _____

C. With which bag do you have the probability of $\frac{1}{2}$ of picking a black marble? _____

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CYCLE 30

Name _____ Date _____

1

A.

$$\begin{array}{r} 7{,}447 \\ +\ 4{,}477 \\ \hline \end{array} \qquad \begin{array}{r} 5{,}775 \\ -\ 4{,}383 \\ \hline \end{array}$$

B.

$$\begin{array}{r} 50 \\ \times\ 8 \\ \hline \end{array} \qquad \begin{array}{r} 3 \\ \times\ 8 \\ \hline \end{array} \qquad \begin{array}{r} 53 \\ \times\ 8 \\ \hline \end{array}$$

C. $5\overline{)35}$ $5\overline{)365}$

2

A. Grant collected $800.25 selling tickets. Each ticket was $8.25. Which number sentence should he use to find how many tickets he sold?

a. 800.25 + 8.25

b. 800.25 – 8.25

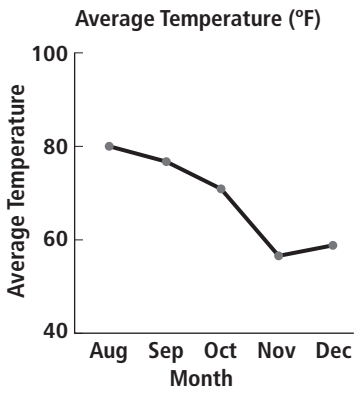
c. 800.25 × 8.25

d. 800.25 ÷ 8.25

B. Grant collected $49 selling tickets. Each ticket is $7.00. How many tickets did he sell?

3

Find the value in the table that does not appear on the line graph. Circle it.



Month	Temperature
Aug	80°
Sep	77°
Oct	71°
Nov	42°
Dec	59°

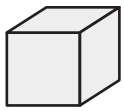
4

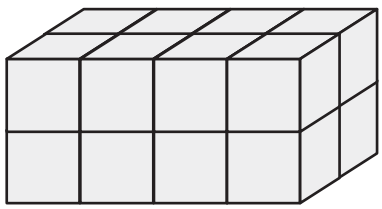
A. A pitcher is filled with water 12 inches in height. Each day, 2 inches evaporate. Make a table that shows the water depth for each day for 4 days.

B. How many days does it take for all of the water to evaporate?

5

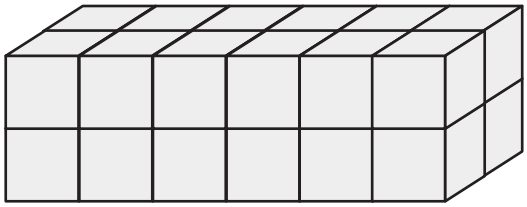
The small cube is 1 cm^3. Write how many cubic centimeters there are in these figures:





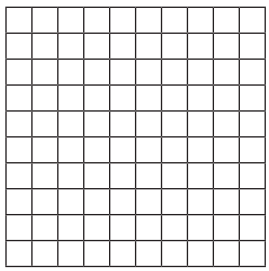
A. _____ cm^3

B. _____ cm^3

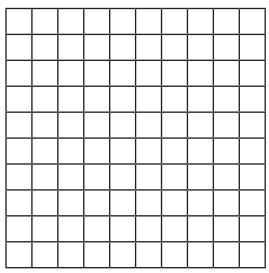


6

A. Color in 3 tenths of this picture.



B. Color in 3 hundredths of this picture.



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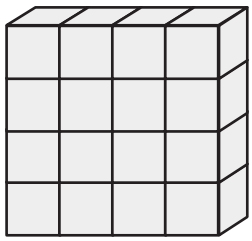
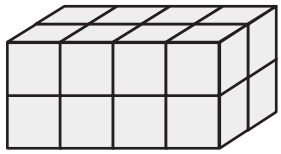
CYCLE 30

Name _____ Date _____

7

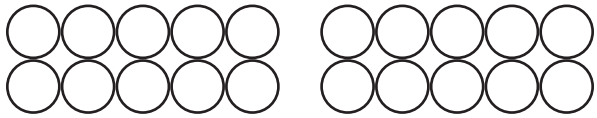
How many of these single cubes would you need to construct these solids?





A. _____ cubes **B.** _____ cubes

8



A. Shade $\frac{3}{10}$ of the circles for the first group.

B. Shade 0.3 of the circles for the second group.

C. Circle the correct symbol: $\frac{3}{10}$ (< > =) 0.3

9

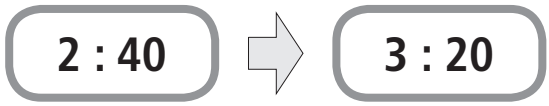
Jane has $10.00. What are two different ways she could spend her money if she wants to buy two items each time without receiving any change?

shorts	$6.50
socks	$2.00
shoes	$12.00
shirts	$6.00
dresses	$8.00
belts	$3.50

A.

B.

10



The clocks show the beginning and ending for Judy's baseball practice. How long did she practice?

_____ hour(s) _____ minutes

11

A. Sue spent from $5 to $15 for each of 4 books. Which could be the total amount she spent on the books?

a. Less than $20 **c.** $30 to $50

b. More than $60 **d.** $20 to $60

B. Sue spent from $10 to $20 for each of 4 books. Which could be the total amount she spent on the books?

a. $40 to $60 **c.** More than $80

b. $50 to $70 **d.** Less than $40

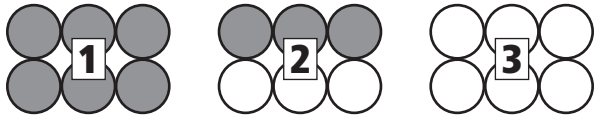
12

There are 6 marbles in each of 3 bags, shown below.

A. If you pick a marble without looking, with which bag do you have the probability of 1 of picking a black marble? _____

B. With which bag do you have the probability of 0 of picking a black marble? _____

C. With which bag do you have the probability of $\frac{1}{2}$ of picking a black marble? _____



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QUIZ 1

Name _____ Date _____

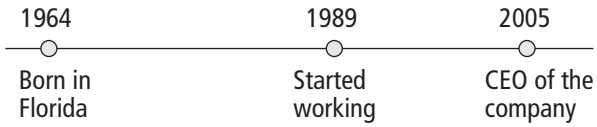
1

$$\begin{array}{r} 70 \\ +\ 90 \\ \hline \end{array} \qquad \begin{array}{r} 130 \\ -\ 70 \\ \hline \end{array}$$

2 Mary picked 6 apples from a tree and Susan picked 9 apples from a tree.

How many more apples did Susan pick than Mary? _____ Show your work.

3 The time line shows part of Jim's father's life. How old was Jim's father when he became the CEO for the company?



_____ years old

4 Draw the next 2 shapes in the pattern.

ΔOOΔOOΔOOΔOO ___ ___

5 Using a ruler, draw a line segment that is $1\frac{1}{2}$ inch long starting at the ⋆ :

⋆

6 Write 4 equivalent forms for 32:

_____ _____

_____ _____

7

Write one property that is common to the shapes and one property that is different:

Common: _____

Different: _____

8 Divide this rectangle into fourths:

9 Jim has 4 dimes, 4 nickels, and 3 pennies. How much money does he have?

Jim has _____¢

10

June

Sun	Mon	Tues	Wed	Thur	Fri	Sat
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

How many days was it from Thursday the 10th until Friday the 25th? _____

11 Which is a reasonable estimate for the difference of 310 and 188?

a. 100

b. 200

c. 300

12 You can make a sundae with only one flavor of ice cream and one topping.

Flavors	Toppings
chocolate	peanuts
vanilla	cherry

How many different sundaes can you make? _____ List them:

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QUIZ 2

Name _____ Date _____

1. $\begin{array}{r} 99 \\ +\ 44 \\ \hline \end{array}$ $\begin{array}{r} 320 \\ -\ 80 \\ \hline \end{array}$

2. Susan packed 30 apples equally into 5 bags. How many apples are in each bag? _____

3. The time line shows part of Tim's father's life:

How old was Tim's father when Tim was born? _____

4. What are the next three numbers in this sequence?

5 7 9 11 ___ ___ ___

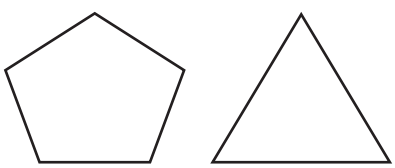
5. Using a ruler, draw a line segment that is $2\frac{1}{2}$ inches long starting at the ⋆ :

⋆

6. Write 4 equivalent forms for 52:

_____ _____

_____ _____

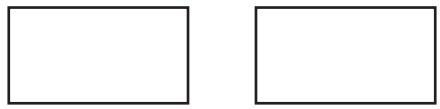
7. 

Write one property that is common to the shapes and one property that is different:

Common: _____

Different: _____

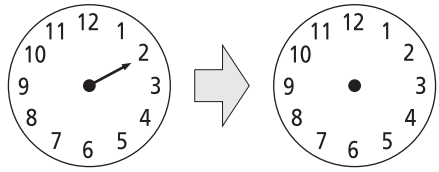
8. Divide the rectangles into fourths two different ways:



9. Jim bought a candy bar for 72¢. He paid with a dollar bill. How much change did he receive?

_____¢

10. The starting time was 2:00. 2 hours have passed. Draw the hour hand for the ending time:



11. Which is a reasonable estimate for the difference of 712 and 108?

a. 500

b. 600

c. 700

12. A new car comes with options of 3 different colors outside—red, silver, and black—and 2 different colors inside, gray and burgundy. List all of the combinations of colors, inside and outside, of the new car:

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QUIZ 3

Name _____ Date _____

1. $\begin{array}{r} 994 \\ +\ 446 \\ \hline \end{array}$ $\begin{array}{r} 340 \\ -\ 90 \\ \hline \end{array}$

2. Susan packed 12 apples equally into 4 bags. How many apples are in each bag? _____

3. Suzy worked 9 hours but forgot to fill in the chart. Complete it for her.

Hours at Work

Frank	
Bob	
Suzy	

Each equals 3 hours.

4. Draw the next three shapes in this pattern:

♦♦❤❤♦♦❤❤♦ ___ ___ ___

5. Using a ruler, draw a line segment that is $4\frac{1}{2}$ cm long starting at the ⋆:

⋆

6. 1 yard is 36 inches. 4 yards is equivalent to _____ inches.

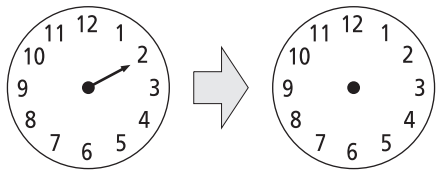
7. Draw an acute angle from the line segment:

_____

8. Divide the rectangle into fourths and shade $\frac{1}{4}$:

9. Bob owes you 10 dollars. If he gives you $4.25, then how much does he still owe you?
$_____

10. The starting time was 2:00. 11 hours have passed. Draw the hour hand for the ending time:



11. Which is a reasonable estimate for the sum of 712 and 108?

a. 700

b. 800

c. 900

12. The local sandwich shop sells turkey sandwiches with your choice of two vegetables. The choices are: lettuce, tomato, onion, and pickles.

How many different combinations of vegetables are there for a sandwich? _____
List them:

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QUIZ 4

Name _____ Date _____

1

$$\begin{array}{r} 426 \\ +\ 366 \\ \hline \end{array} \qquad \begin{array}{r} 443 \\ -\ 407 \\ \hline \end{array}$$

$$\begin{array}{r} 2 \\ \times\ 5 \\ \hline \end{array} \qquad \begin{array}{r} 5 \\ \times\ 6 \\ \hline \end{array} \qquad \begin{array}{r} 7 \\ \times\ 2 \\ \hline \end{array} \qquad \begin{array}{r} 8 \\ \times\ 5 \\ \hline \end{array}$$

2 Susan has 9 bags of apples and each bag has 5 apples. How many apples does she have?

_____

3 How many more cups did Coffee Palace sell than Coffee Zone? _____ cups

Cups of Coffee Sold

Coffee Club	☕ ☕
Coffee Zone	☕
Coffee Palace	☕ ☕ ☕

Each ☕ equals 50 cups of coffee.

4 Fill in the next three numbers in this pattern.

50 55 60 _____ _____ _____

5 List one thing that is about 1 meter long:

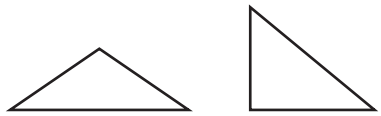
_____

6 Write three numbers in the blanks to make the number sentences true:

_____ + _____ + _____ = 20

_____ + _____ + _____ = 20

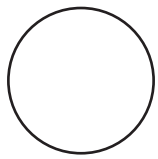
7 Write one common and one different attribute of the two shapes:



Common: _____

Different: _____

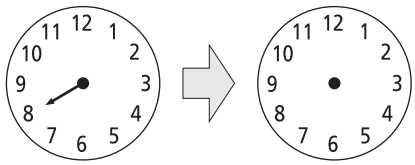
8 Divide the circle into fourths and shade $\frac{1}{4}$:



9 Bill has 5 dimes, a nickel, and 7 pennies. John has 4 dimes and 3 nickels. Who has more money? How much more money?

_____ has _____ more.

10 The starting time was 8:00. 6 hours have passed. Draw the hour hand for the ending time:



11 A restaurant bought 5 dozen eggs at $0.99 per dozen. What was the estimated total cost of the eggs? _____

12 Gymnast Carlos has 1 pair of black pants and 1 pair of white pants. He has white and blue shirts. How many different combinations of outfits does he have? _____ List the combinations:

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QUIZ 5

Name _____ Date _____

1. $\begin{array}{r} 763 \\ +\ 366 \\ \hline \end{array}$ $\begin{array}{r} 2{,}443 \\ -\ 707 \\ \hline \end{array}$

$\begin{array}{r} 9 \\ \times 5 \\ \hline \end{array}$ $\begin{array}{r} 9 \\ \times 6 \\ \hline \end{array}$ $\begin{array}{r} 7 \\ \times 5 \\ \hline \end{array}$ $\begin{array}{r} 8 \\ \times 9 \\ \hline \end{array}$

2. Susan has 40 cents with 3 coins. Name the three coins: _____

3. Doug got 5 A's, Frank got 20 A's, and Suzy got 15 A's. Fill in the pictograph.

Number of A's in Math

Doug	☺
Frank	
Suzy	

Each ☺ equals 5 A's.

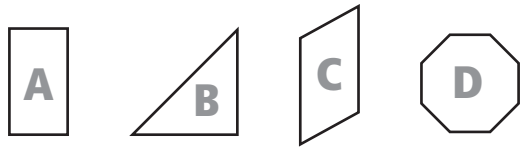
4. Fill in the table.

Input	1	3	6	7	9
Output	9	27			

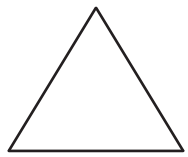
5. The length of my shoe: _____ cm.

6. How many tens do you need to make 200? _____ tens

7. Mark an X on the figures that have two acute angles:



8. Divide the triangle into halves and shade $\frac{1}{2}$:



9. Antonio wants to buy a CD. The CD costs $12. He has $4 saved, and he can save $2 a week.

   How many weeks will it take Antonio to save enough money to buy the CD? _____

10. The movie started at 2:00 and ended at 5:30. How many hours have gone by? _____

11. Mrs. James bought 10 pints of berries. Each pint cost 97¢. She has only one-dollar bills. How many one-dollar bills does Mrs. James need to pay for the berries? _____

12. Wanda has 1 yellow, 1 blue, and 1 pink skirt and 1 red and 1 pink shirt. How many different combinations of outfits can Wanda have? _____ List the combinations:

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QUIZ 6

Name _____ Date _____

1

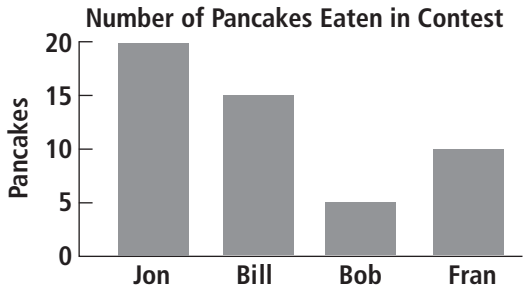
$$\begin{array}{r} 576 \\ +\ 576 \\ \hline \end{array} \qquad \begin{array}{r} 4{,}365 \\ -\ 727 \\ \hline \end{array}$$

$$\begin{array}{r} 6 \\ \times\ 5 \\ \hline \end{array} \qquad \begin{array}{r} 4 \\ \times\ 6 \\ \hline \end{array} \qquad \begin{array}{r} 7 \\ \times\ 6 \\ \hline \end{array} \qquad \begin{array}{r} 8 \\ \times\ 6 \\ \hline \end{array}$$

2 Lakisha has 4 cans of cookies and each can contains 25 cookies. To find out how many cookies she has, which math problem would you solve?

a. 25×4 **b.** $25 + 4$ **c.** $25 \div 4$

3 Look at this graph. Who ate 15 fewer pancakes than Jon? _____



4 Fill in the table below.

Input	1	3	6	7	9
Output	6		36		

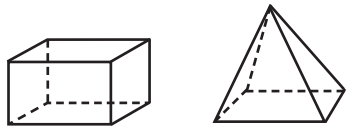
5 My body temperature is _____ °F.

6 9×100 plus 5×10 plus 7×1

= _____ + _____ + _____

= _____

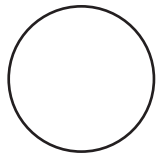
7 Write two properties of the figures that differ:



_____

_____

8 Divide the circle into fourths and shade $\frac{3}{4}$:



9 By drawing combinations of 6 coins, show $1.00:

10 Write the time on the clock: _____ : _____

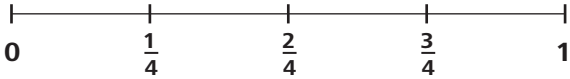
11 Sam takes a 3-mile walk along a trail. Which of the following is a reasonable amount of time for Sam to walk the trail?

a. 1.5 hours **b.** 5 hours **c.** 5 minutes

12 You reach into a bag with 1 red, 1 white, and 2 blue marbles and pick one without looking.

Write ① on the number line for the chance of getting a red marble.

Write ② on the number line for the chance of getting a pink marble.



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QUIZ 7

Name _____ Date _____

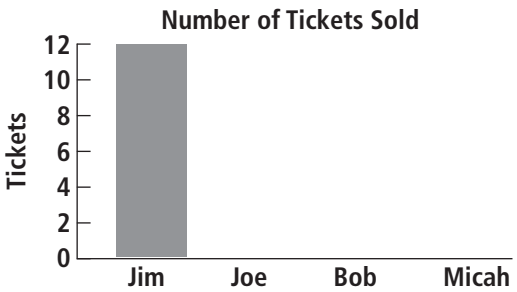
1

$$\begin{array}{r} 686 \\ +\ 566 \\ \hline \end{array} \qquad \begin{array}{r} 4{,}062 \\ -\ 727 \\ \hline \end{array}$$

$$\begin{array}{r} 7 \\ \times 7 \\ \hline \end{array} \quad \begin{array}{r} 7 \\ \times 8 \\ \hline \end{array} \quad \begin{array}{r} 8 \\ \times 6 \\ \hline \end{array} \quad \begin{array}{r} 8 \\ \times 8 \\ \hline \end{array}$$

2 Candy bought 8 bags of popcorn. Each bag cost $3.00. How much money did Candy pay for the popcorn? _____

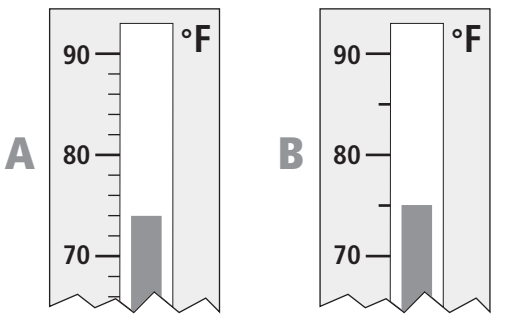
3 Jim sold 12 tickets, Joe sold 7 tickets, Micah sold 2 tickets, and Bob sold 10 tickets. Complete the bar graph.



4 Fill in the table below.

Input	1	3	4	7	9
Output	7			49	

5 Write the temperatures shown on the two thermometers:



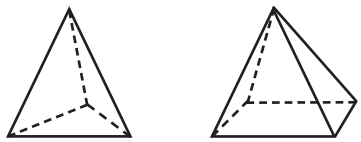
A. _____°F **B.** _____°F

6 865 = ____ × _____ plus

____ × _____ plus

____ × _____

7 Write 2 properties of the figures that are different:



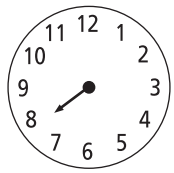
_____

_____

8 Using an inch ruler, draw a line segment $1\frac{1}{4}$ inch long:

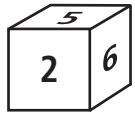
9 Mari bought a book that cost $3.86. She gave the clerk a $5.00 bill. What is the correct change? _____

10 Draw a minute hand for 7:45 on the clock face:



11 The product of 2.9 × 5 is about _____ .

12 The cube has 6 faces and they are numbered 1 through 6.



If you toss the cube, the probability of getting 2 on the top when it lands is:

_____ out of _____ or ☐

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QUIZ 8

Name _____ Date _____

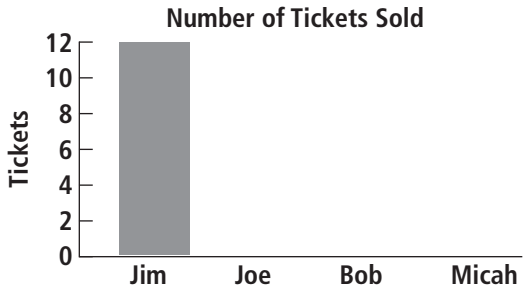
1

$$\begin{array}{r} 777 \\ +\ 566 \\ \hline \end{array} \qquad \begin{array}{r} 8{,}456 \\ -\ 727 \\ \hline \end{array}$$

$$\begin{array}{r} 7 \\ \times\ 6 \\ \hline \end{array} \qquad \begin{array}{r} 9 \\ \times\ 8 \\ \hline \end{array} \qquad \begin{array}{r} 8 \\ \times\ 5 \\ \hline \end{array} \qquad \begin{array}{r} 7 \\ \times\ 8 \\ \hline \end{array}$$

2 Sue has 6 coins: 4 of one kind and 2 of another. If the coins can be quarters, dimes, nickels, and pennies, what is the highest amount Sue could have? _____

3 Jim sold 12 tickets, Joe sold 4 tickets, Micah sold 6 tickets, and Bob sold 8 tickets. Complete the bar graph.

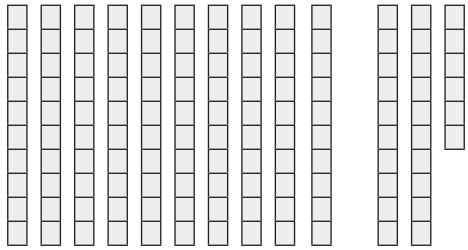


4 Fill in the table below.

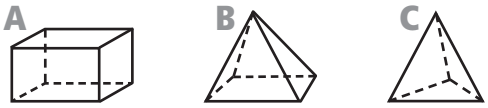
Input	1	3	4	7	9
Output	6			42	

5 Using your ruler, draw a rectangle with a height of 1 inch and a width of 2 inches:

6 These base ten blocks represent:_____



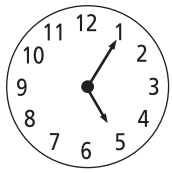
7 Which shape has 5 faces with 5 vertices? ____



8 Mark $4\frac{1}{2}$ on the number line with an A.

9 Amy bought a book that cost $2.75 and gave the clerk a $10 bill. What is the correct change? _____

10 Write the time in two ways.



____ : ____

_____ minutes after _____

11 The product of 4.1×5 is about _____ .

12 A gumball machine contains the following gumballs: 6 red, 2 white, 8 orange, and 4 blue. If you put in a quarter and turn the handle for one gumball, which color are you LEAST LIKELY to get? _____

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QUIZ 9

Name _____ Date _____

1

$$\begin{array}{r} 6{,}546 \\ +\ 5{,}366 \\ \hline \end{array} \qquad \begin{array}{r} 8{,}456 \\ -3{,}658 \\ \hline \end{array}$$

$7 \times 3 =$ $4 \times 8 =$

$42 \div 7 =$ $42 \div 6 =$

2 Write 3 other family facts for $4 \times 9 = 36$:

_____ _____

_____

3 By the data, who would be the fourth-best player to choose for your team? _____

Name	Home Runs
Jim	5
John	0
Mary	3
Bill	2
Suzy	4

4 Fill in the table below.

Input	5	10	20	30	35
Output	1	2			

5 Using your ruler, draw a rectangle with a height of 4 cm and a width of 5 cm:

The perimeter = _____ cm

6 1 meter is 1,000 centimeters (1 m = 1,000 cm)

10 m = _____ cm

7 Write one property that is different between the two figures:

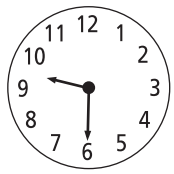
_____

8 Write a fraction that is equal to 1, and draw a picture that represents the fraction:

9 Amy bought a book for $4.20 and a set of markers for $1.20, and she paid $.27 for tax. She paid with a $10 bill. What is the change?

_____

10 Write the time in two ways in the box.



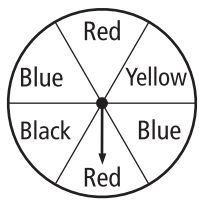
_____ : _____

Half past _____

11 The quotient of $239 \div 3$ is about:

a. 8 **b.** 80 **c.** 800

12 What is the probability of the spinner landing on red? _____



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QUIZ 10

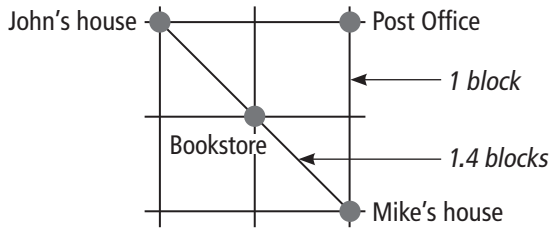
Name _____ Date _____

1 3,347 + 3,497 = _____ 6,776 − 4,661 = _____

$7 \times 7 =$ _____ $8 \times 8 =$ _____

$49 \div 7 =$ _____ $64 \div 8 =$ _____

2 Mike wants the shortest route that will allow him to visit the bookstore, post office, and John's house, in no particular order, starting from his house and returning to his house. How many blocks does he take? _____ Each diagonal distance is 1.4 blocks.



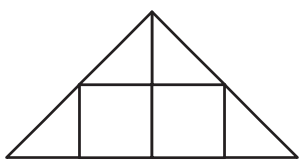
3 By the data, what is the second most-popular activity? _____

Our Favorite Activities	
Dance	𝍸
Football	𝍸 𝍸 III
Bicycling	𝍸 I
Karate	II

4 Fill in the table below.

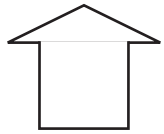
Input	18	36	81	90	63
Output	2	4			

5 Write the area of the figure: _____ cm^2



6 2 pennies = ____ hundredths of a dollar

7 Draw a line of symmetry for the figure:

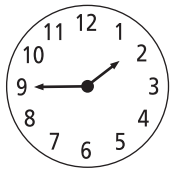


8 Write a fraction that is greater than 1, and draw a picture that illustrates the fraction.

9 Bill has 30 pennies, 2 nickels, 5 dimes, and 3 quarters. How much does Bill have?

_____

10 Write the time in two ways in the box.



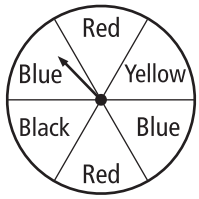
____ : ____

____ minutes before ____

11 The quotient of 149 ÷ 5 is about:

a. 3 **b.** 30 **c.** 300

12 What is the probability of the spinner landing on blue or yellow? _____



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QUIZ 11

Name _____ Date _____

1

$$\begin{array}{r} 2{,}578 \\ +\ 3{,}897 \\ \hline \end{array} \qquad \begin{array}{r} 9{,}574 \\ -\ 4{,}668 \\ \hline \end{array}$$

$$\begin{array}{r} 20 \\ \times\ 9 \\ \hline \end{array} \qquad \begin{array}{r} 20 \\ \times\ 6 \\ \hline \end{array} \qquad \begin{array}{r} 21 \\ \times\ 8 \\ \hline \end{array}$$

$9\overline{)180}$ $5\overline{)250}$

2 The pet store received 400 hamsters. The store owner wants to put 8 hamsters in each cage. How many cages will he need _____?

3 Construct a bar graph that represents the same information as the pictograph.

Day	Computers
Mon	🖳🖳
Tues	🖳
Wed	🖳🖳🖳
Thurs	🖳🖳

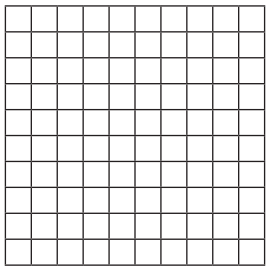
Each 🖳 equals 5 computers.

4 Complete this table.

Driving hours	1	2	3	4	5
Distance traveled in miles	65				

5 Sam is building a fence around his rectangular-shaped dog pen. The length is 12 meters and the width is 15 meters. What is the perimeter of the dog pen? _____

6 Color in 15 hundredths of this picture.

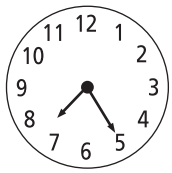


7 Draw a line of symmetry for this figure:

8 Write the three fractions ($\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{3}$) in order from smallest to largest:

9 A carnival ride ticket costs $1.25. How much will it cost to buy 5 tickets? _____

10 Write time for the digital clock as shown on the analog clock:



_____ : _____

11 Round 574 to the nearest hundred: _____

12 A gumball machine contains the following gumballs: 10 red, 4 white, 6 orange. If you put in a quarter and turn the handle for one gumball, what is the probability that you will get a red gumball?

a. $\frac{10}{20}$ **b.** $\frac{4}{20}$ **c.** $\frac{6}{20}$

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QUIZ 12

Name _____ Date _____

1

$$\begin{array}{r} 6{,}444 \\ +\ 4{,}497 \\ \hline \end{array} \qquad \begin{array}{r} 5{,}777 \\ -\ 4{,}591 \\ \hline \end{array}$$

$$\begin{array}{r} 50 \\ \times\ 5 \\ \hline \end{array} \qquad \begin{array}{r} 2 \\ \times\ 5 \\ \hline \end{array} \qquad \begin{array}{r} 52 \\ \times\ 5 \\ \hline \end{array}$$

$7\overline{)21}$ $7\overline{)217}$

2 Write 3 family facts for $7 \times 4 = 28$:

_____ _____

_____

3 If a bar graph displayed this same data, then the longest bar would be that of: _____

Day	Computers
Mon	🖳🖳
Tues	🖳
Wed	🖳🖳🖳
Thurs	🖳🖳

Each 🖳 equals 5 computers.

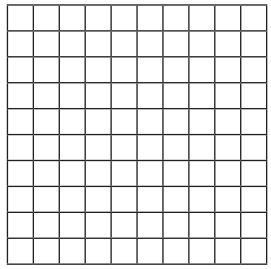
4 Circle all numbers below that can go in the blank for the number sentence:

$5 + ___ > 12$

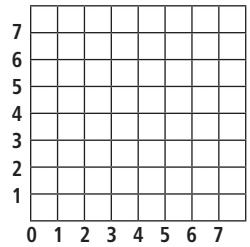
0, 2, 10, 4, 9, 5, 8

5 Use your ruler to construct a rectangle with a height of 2 cm and a width of 3 cm.
Area of the rectangle = _____ cm^2
Perimeter of the rectangle = _____cm

6 Color in 8 hundredths of this picture.



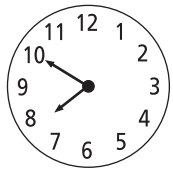
7 Draw lines connecting the points:
(2,1), (2,5), (6,1), and (6,5)



8 Write the three fractions ($\frac{2}{3}$, $\frac{3}{4}$, $\frac{1}{3}$) in order from smallest to largest:

9 Lakisha dog-sits after school, earning $2.50 each day. How many days does she need to dog-sit to make $10? _____

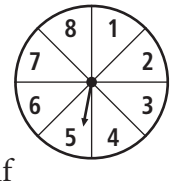
10 Write the time for the digital clock as shown on the analog clock:



_____ : _____

11 Round 534 to the nearest hundred: _____

12 You and your brother are playing a game with a spinner. Your brother wins if the arrow lands on any number smaller than 5 on the spinner. You win if the arrow lands on any number larger than 5. Is the game fair? _____



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QUIZ 13

Name _____ Date _____

1

$$\begin{array}{r} 7{,}747 \\ +\ 2{,}888 \\ \hline \end{array} \qquad \begin{array}{r} 6{,}772 \\ -\ 4{,}444 \\ \hline \end{array}$$

$$\begin{array}{r} 40 \\ \times\ 3 \\ \hline \end{array} \qquad \begin{array}{r} 6 \\ \times\ 3 \\ \hline \end{array} \qquad \begin{array}{r} 46 \\ \times\ 3 \\ \hline \end{array}$$

$3\overline{)24}$ $3\overline{)252}$

2 Grant sold 15 tickets. Each ticket cost $9.00. How much money did Grant collect for the tickets? _____

3 If a bar graph was constructed using this same data, then which year would have the longest bar? _____

Year	Profits
1999	$16,000
2000	$8,000
2001	$10,000
2002	$5,000

4 Circle all numbers below that can go in the blank for the number sentence:

$10 - ___ < 3$

0, 2, 10, 4, 9, 5, 8

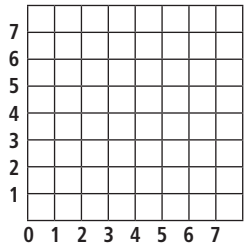
5 A liter of water is about _____ kg.

6 $537 = 5 \times 100$ plus
3×10 plus
7×1

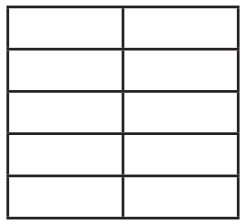
Do the same as in the example:

830 = _____ × _____ plus
_____ × _____ plus
_____ × _____ plus

7 Draw lines connecting the points (1,2), (1,4), and (3,2), and find the number pair of the missing point: (____, ____)



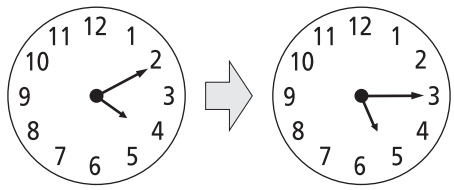
8 Shade 0.8 of the rectangle:



9 Antonio wants to buy a music CD. The CD costs $10. He has $4 saved, and he can save $2 a week. How many weeks will it take Antonio to save enough money to buy the CD? _____

10 The clocks show the beginning and ending time for John's piano lesson. How much time did John spend at his lesson?

_____hour(s) _____minutes



11 Round 574 to the nearest hundred:

12 Your sock drawer contains 30 white socks and 10 black socks. Predict how likely you are to get a white sock when you pull out one without looking.

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QUIZ 14

Name _____ Date _____

1

$$\begin{array}{r} 3{,}345 \\ +\ 3{,}445 \\ \hline \end{array} \qquad \begin{array}{r} 6{,}745 \\ -\ 4{,}655 \\ \hline \end{array}$$

$$\begin{array}{r} 80 \\ \times\ 7 \\ \hline \end{array} \qquad \begin{array}{r} 6 \\ \times\ 7 \\ \hline \end{array} \qquad \begin{array}{r} 86 \\ \times\ 7 \\ \hline \end{array}$$

$5\overline{)45}$ $5\overline{)460}$

2 Mike collected $81 by selling tickets. Each ticket is $9.00. How many tickets did he sell?

_____

3 Construct a bar graph using the data on this pictograph:

	Hours at Work
Frank	🕒
Bob	🕒 🕒 🕒
Suzy	🕒 🕒

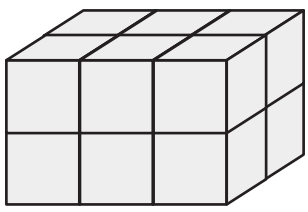
Each 🕒 equals 3 hours.

4 Place the correct sign (>, <, or =) in each number sentence.

70×5 ( ) 300

$200 \div 4$ ( ) 60

5 How many cubic centimeters are there in this figure? _____ cm^3



6 How many tens do you need to make 300?

_____ tens

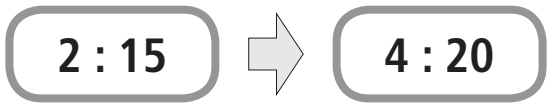
7 Jane placed a rectangular prism on a piece of paper. She traced the bottom of the prism. What shape did she draw? _____

8 Circle the correct symbol that will make the number sentence true: $\frac{2}{10}$ (>, <, or =) 0.3

9 Sam bought 4 items and paid with a $10 bill. He received 3 quarters and 1 nickel in change. What are the 4 items Sam could have bought? Circle the 4 items in the box.

crayon	$2.00
notebook	$1.20
marker	$0.50 each
poster	$5.00 each
card	$1.00 each

10 The clocks show the beginning and ending time of your reading. How long did you read? _____ hour(s) _____ minutes



11 Round the prices to the nearest $1.00:

Souvenir	Cost	Rounded to $1
Baseball cap	$10.20	
Foam "#1" hand	$9.80	

12 Jack likes only red and blue. He has 1 red shirt and 1 blue shirt and 1 pair of red pants and 1 pair of blue pants. How many different combinations of outfits can he have?

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QUIZ 15

Name _____ Date _____

1

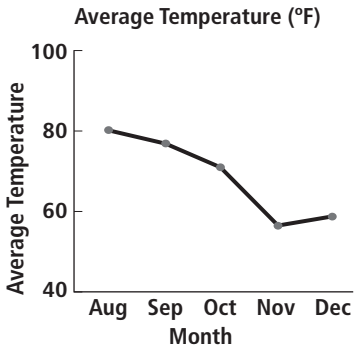
$$\begin{array}{r} 7{,}447 \\ +\ 4{,}477 \\ \hline \end{array} \qquad \begin{array}{r} 5{,}775 \\ -\ 4{,}383 \\ \hline \end{array}$$

$$\begin{array}{r} 50 \\ \times\ 8 \\ \hline \end{array} \qquad \begin{array}{r} 3 \\ \times\ 8 \\ \hline \end{array} \qquad \begin{array}{r} 53 \\ \times\ 8 \\ \hline \end{array}$$

$5\overline{)35}$ $5\overline{)365}$

2 Mike collected $49 selling tickets. Each ticket is $7.00. How many tickets did he sell? _____

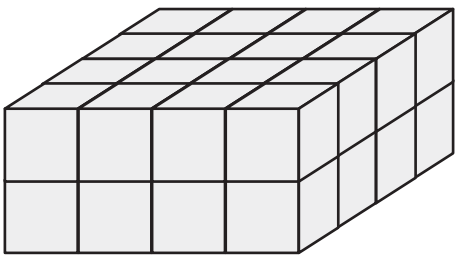
3 Find the value in the table that does not appear on the line graph. Circle it.



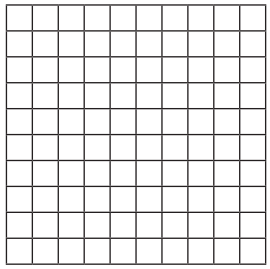
Month	Temperature
Aug	80°
Sep	77°
Oct	71°
Nov	42°
Dec	59°

4 If you drive 50 miles per hour, how far will you have traveled in 1 hour? 2 hours? 3 hours? 4 hours? Make a table showing your answers.

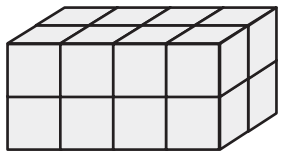
5 How many cubic centimeters are there in this figure? _____ cm^3



6 Color in 3 hundredths of this picture.



7 How many small cubes would you need to construct this solid? _____



8 Circle the correct symbol that will make this number sentence true: $\frac{10}{100}$ (<, >, =) 0.3

9 Jane has $10.00. Circle the 3 items she could buy without receiving any change.

shorts	socks	shoes	shirts	dresses	belts
$4.50	$2.00	$12.00	$6.00	$8.00	$3.50

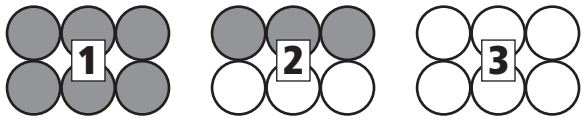
10 The clocks show the beginning and ending time of your reading lesson. How long did you read? _____ hour(s) _____ minutes

11 Sue spent from $10 to $20 for each of 3 books. What could be the total amount she spent?

a. Less than $30 **c.** $40 to $60

b. More than $60 **d.** $30 to $60

12 There are 6 marbles in each bag shown below. With which bag do you have the probability of 1 of picking a black marble? _____



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Grade 4

Cycles 31 to 60 ..... page 84

Quizzes 16 to 30 ..... page 144

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CYCLE 31

Name _____ Date _____

1

A.

$$\begin{array}{r} 26 \\ +\,66 \\ \hline \end{array} \qquad \begin{array}{r} 95 \\ -\,57 \\ \hline \end{array}$$

B.

$$\begin{array}{r} 2 \\ \times\,3 \\ \hline \end{array} \qquad 2\overline{)6}$$

2

Allie, Bob, and Cathy participated in a book sale contest. The chart below shows the results.

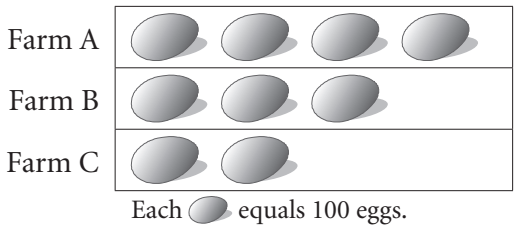
	Week 1	Week 2	Week 3	Week 4
Bob	18	12	21	10
Allis	15	15	15	15
Cathy	12	17	25	12

A. Who sold the most books during weeks 3 and 4, combined?

B. Who sold the most books during the 4 weeks?

3

Cartons of Eggs Sold Last Month



Each ⬭ equals 100 eggs.

A. How many cartons of eggs were sold by farms A and C together last month?

B. How many more cartons of eggs were sold by Farm B than Farm C last month?

4

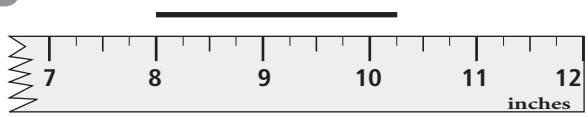
Peter wrote down a pattern that repeats in groups of 3. Here is the beginning of his pattern with some of the letters erased. Fill in the missing letters.

A B B A ___ B ___ ___

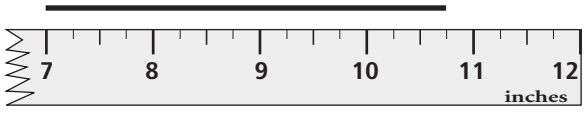
X X Y X ___ Y X ___ Y

O X O O X ___ O ___

5



A. What is the length of the line in the figure above?



B. What is the length of the line in the figure above?

6

A. Circle the numeral that has a 4 in the hundreds place:

3,245 4,325 5,432 6,542

B. Circle the numeral that has a 4 in the tens place:

3,245 4,325 5,432 6,532

C. Circle the numeral that has a 4 in the thousands place:

3,245 4,325 5,432 6,542

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CYCLE 31

Name _____ Date _____

7

List 4 pairs of parallel streets:

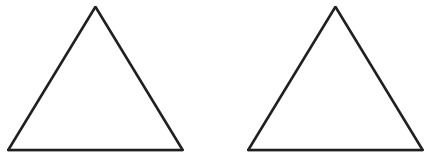
_____ & _____

_____ & _____

_____ & _____

_____ & _____

8



A. Divide the first triangle into halves and shade $\frac{1}{2}$.

B. Divide the second triangle into thirds and shade $\frac{2}{3}$.

C. Insert <, >, or = to make the number sentence true: $\frac{1}{2}$ ( ) $\frac{2}{3}$

9

Draw combinations of quarters, dimes, nickels, and pennies to show:

A. 50¢:

B. $1.00:

C. $1.20:

10

In these math problems, circle the factors and draw squares around the multiples or products.

A. $5 \times 3 = 15$

B. $6 = 3 \times 2$

C. $2 \times 4 = 8$

D. $12 = 3 \times 4$

11

A. Which is a reasonable estimate for the sum of 312 and 108?

a. 400

b. 500

c. 600

B. Which is a reasonable estimate for the sum of 390 and 188?

a. 400

b. 500

c. 600

12

You can make a sundae with one flavor and one topping. Here are the available choices:

Flavors	Toppings
chocolate	peanuts
vanilla	cherry

How many different sundaes can you make?

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CYCLE 32

Name _____ Date _____

1

A.

$$\begin{array}{r} 54 \\ +\ 16 \\ \hline \end{array} \qquad \begin{array}{r} 46 \\ -\ 27 \\ \hline \end{array}$$

B.

$$\begin{array}{r} 2 \\ \times\ 4 \\ \hline \end{array} \qquad 2\overline{)4}$$

2

A. Justine needs to buy 3 cartons of eggs. Each carton has 2 rows of eggs, and each row has 6 eggs. Which equation can be used to find the total number of eggs?

a. $(2 \times 6) + 3$ **c.** $2 \times (6 + 3)$

b. $(2 \times 6) \times 3$ **d.** $2 \times (6 \times 3)$

B. Justine needs to buy 7 cartons of eggs. Each carton has 2 rows of eggs, and each row has 6 eggs. Which equation can be used to find the total number of eggs?

a. $(2 \times 6) + 7$ **c.** $2 \times (6 + 7)$

b. $(2 \times 6) \times 7$ **d.** $2 \times (6 \times 7)$

3

Susan wants to know the favorite seasons of the students in her school. She thinks that there are too many students to survey—600 students from kindergarten to fifth grade, or 100 students in each grade.

A. Write a question that Susan can ask the students:

B. If she wants to select 60 students for the survey, what is a good way to select them?

4

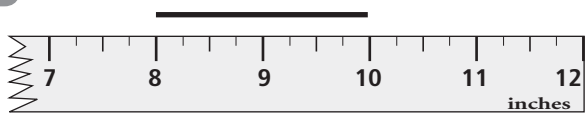
Peter wrote down a pattern that repeats in groups of 3. Here is the beginning of his pattern with some of the letters erased. Fill in the missing letters.

B A A B ___ A ___ ___

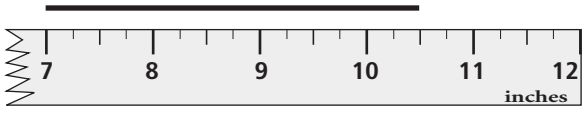
Y X Y Y ___ Y ___ ___ ___

X O O X ___ ___ X ___

5



A. What is the length of the line in the figure above?



B. What is the length of the line in the figure above?

6

A. Circle the numeral that has a 5 in the hundreds place:

3,245 4,325 5,432 6,542

B. Circle the numeral that has a 5 in the tens place:

3,245 4,325 5,432 6,352

C. Circle the numeral that has a 5 in the thousands place:

3,245 4,325 5,432 6,542

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CYCLE 32

Name _____ Date _____

7

List 4 pairs of perpendicular streets:

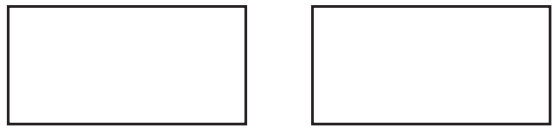
_____ & _____

_____ & _____

_____ & _____

_____ & _____

8



A. Divide the first rectangle into halves and shade $\frac{1}{2}$.

B. Divide the second rectangle into thirds and shade $\frac{2}{3}$.

C. Insert <, >, or = to make the number sentence true: $\frac{1}{2}$ ( ) $\frac{2}{3}$

9

Draw combinations of quarters, dimes, nickels, and pennies to show:

A. 4 coins, $1.00:

B. 3 coins, 60¢:

10

In these math problems, circle the factors and draw squares around the multiples or products.

A. $10 \times 3 = 30$

B. $16 = 8 \times 2$

C. $2 \times 5 = 10$

D. $12 = 3 \times 4$

11

A. Which is a reasonable estimation for the difference of 312 and 108?

a. 200

b. 300

c. 400

B. Which is a reasonable estimation for the difference of 310 and 188?

a. 100

b. 200

c. 300

12

You can make a sandwich with one kind of bread, one meat, and one vegetable.

Breads	Meats	Vegetables
white	chicken	lettuce
wheat	beef	tomato

How many different sandwiches can you make?

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CYCLE 33

Name _____ Date _____

1

A.

$$\begin{array}{r} 56 \\ +\ 17 \\ \hline \end{array} \qquad \begin{array}{r} 43 \\ -\ 27 \\ \hline \end{array}$$

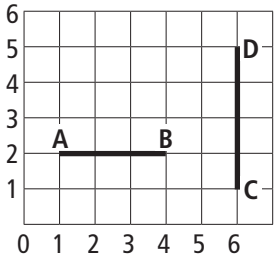
B.

$$\begin{array}{r} 2 \\ \times\ 9 \\ \hline \end{array} \qquad 2\overline{)10}$$

2

People are lined up at a movie ticket booth to buy a ticket. It takes 1 minute to buy a ticket. There are 100 people in line in front of you. About how many hours and minutes will you have to stand in line before you can buy your ticket?

3



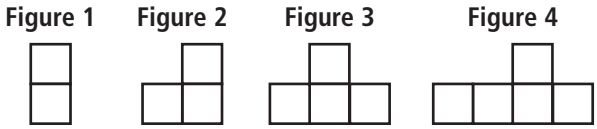
A. The coordinates A = (,), B = (,)

B. The length of the line segment AB = _____ units

C. The coordinates C = (,), D = (,)

D. The length of the line segment CD = _____ units

4



Look at the pattern of the squares as the number of squares increases in each figure.

A. Draw Figure 5's squares:

B. What is the rule of the pattern?

5

4 quarts make 1 gallon
4 cups make 1 quart

A. How many cups make a half gallon? ____

B. How many cups make a gallon? ____

C. How many cups of orange juice are there in a pitcher that holds 2 quarts? _____

D. How many cups of orange juice are there in a pitcher that holds 2.5 quarts? ____

6

A. In 7,543

The _____ is in the tens place, and

The _____ is in the hundreds place, and

The _____ is in the thousands place.

B. In 8,246

The _____ is in the tens place, and

The _____ is in the hundreds place, and

The _____ is in the thousands place.

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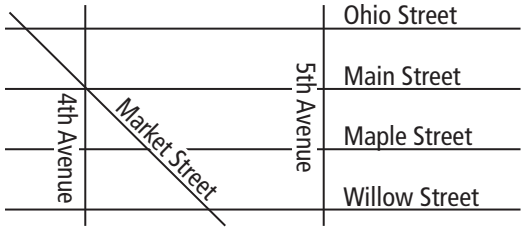
CYCLE 33

Name _____ Date _____

7



A. List 1 pair of parallel streets:

_____ & _____

B. List 1 pair of perpendicular streets:

_____ & _____

8

Write the fractions on the shaded portion of the strips:

A.

B.

C.

D. What do the fractions shown in the three strips have in common?

9

Draw combinations of quarters, dimes, nickels, and pennies to show:

A. 3 coins, 40¢:

B. 3 coins, 75¢:

C. 5 coins, $80¢:

10

A. Two whole numbers, each greater than 2, are multiplied together. The product is 12. What could the two factors be?

B. Two whole numbers, each greater than 2, are multiplied together. The product is 24. What could the two factors be?

C. Two whole numbers, each greater than 2, are multiplied together. The product is 30. What could the two factors be?

11

A. Which is a reasonable estimate for the sum of 512 and 308?

a. 800

b. 900

c. 1,000

B. Which is reasonable estimate for the sum of 590 and 188?

a. 700

b. 800

c. 900

12

You can make a sandwich with one kind of bread, one meat, and one vegetable.

Breads	Meats	Vegetables
white	chicken	lettuce
rye	turkey	tomato

How many different sandwiches can you make?

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CYCLE 34

Name _____ Date _____

1

A.
$$\begin{array}{r} 48 \\ +\ 36 \\ \hline \end{array} \qquad \begin{array}{r} 22 \\ -\ 17 \\ \hline \end{array}$$

B.
$$\begin{array}{r} 2 \\ \times\ 8 \\ \hline \end{array} \qquad 2\overline{)14}$$

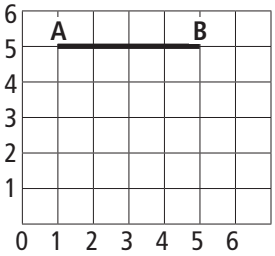
2

Sam is shorter than Ronnie. Sam is taller than Michael. Denise's height is between Sam's height and Ronnie's height.

A. Who is the shortest person?

B. Who is the tallest person?

3



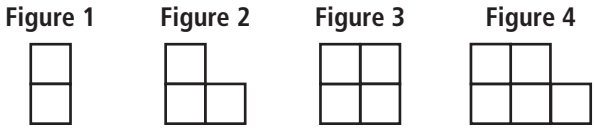
A. The coordinates A = (,), B = (,).

B. The length of the line segment AB = _____ units.

C. Draw a line segment CD so that CD and AB are parallel.

D. The coordinates C = (,), D = (,).

4



Look at the pattern of the squares by the increasing number of figures.

A. How many squares are in Figure 5?

B. What is the rule of the pattern?

5

4 quarts make 1 gallon
4 cups make 1 quart

A. How many cups make a gallon?

B. How many cups of orange juice are there in a pitcher that holds 3 quarts?

C. How many cups of orange juice are there in a pitcher that holds 5 quarts?

6

A. In 8,124

The _____ is in the tens place, and

The _____ is in the hundreds place, and

The _____ is in the thousands place.

B. In 9,754

The _____ is in the tens place, and

The _____ is in the hundreds place, and

The _____ is in the thousands place.

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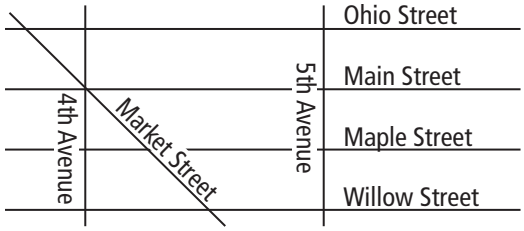
CYCLE 34

Name _____ Date _____

7



A. List 1 pair of parallel streets:

_____ & _____

B. List 1 pair of perpendicular streets:

_____ & _____

C. List 1 pair of intersecting streets:

_____ & _____

8

Write the fractions on the shaded portion of the strips:

A.

B.

C.

D. What do the fractions shown in the three strips have in common?

9

Draw combinations of quarters, dimes, nickels, and pennies to show:

A. 4 coins, 40¢:

B. 4 coins, 70¢:

C. 5 coins, 60¢:

10

A. Two whole numbers, each greater than 2, are multiplied together. The product is 15. What could the two factors be?

B. Two whole numbers, each greater than 2, are multiplied together. The product is 12. What could the two factors be?

C. Two whole numbers, each greater than 2, are multiplied together. The product is 20. What could the two factors be?

11

A. Which is a reasonable estimate for the difference of 712 and 108?

- **a.** 500
- **b.** 600
- **c.** 700

B. Which is reasonable estimate for the difference of 810 and 198?

- **a.** 500
- **b.** 600
- **c.** 700

12

A new car comes with options of 4 different outside colors—red, silver, black, and green—and 2 different inside colors—gray and burgundy. List all of the combinations of inside and outside colors of the new car:

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CYCLE 35

Name _____ Date _____

1

A.
$$\begin{array}{r} 426 \\ +\ 366 \\ \hline \end{array} \qquad \begin{array}{r} 256 \\ -\ 107 \\ \hline \end{array}$$

B.
$$\begin{array}{r} 3 \\ \times\ 7 \\ \hline \end{array} \qquad 3\overline{)27}$$

2

A. Wanda has 2 empty egg cartons and 22 eggs. If each carton holds 12 eggs, how many more eggs are needed to fill both cartons?

B. Wanda has 4 empty egg cartons and 45 eggs. If each carton holds 12 eggs, how many more eggs are needed to fill all 4 cartons?

3

The table shows how much time Ella and Wanda spent on their homework in a week.

Name	Mode	Median	Range
Ella	30 minutes	30 minutes	10–50 minutes
Wanda	40 minutes	40 minutes	10–50 minutes

A. Compare mode minutes to find who spent more time doing homework.

B. Compare median minutes to find who spent more time on homework.

4

Puppy's Age	Puppy's Weight
1 month	10 lbs
2 months	15 lbs
3 months	19 lbs
4 months	22 lbs
5 months	lbs

John records the weight of his puppy every month in a chart like the one shown above. If the pattern of the puppy's weight gain continues, how many pounds will the puppy weigh at 5 months? Fill in the chart.

5

A. At a picnic, cider is served in cups. If 1 gallon will fill 16 cups, how many cups can be filled from 9 gallons of cider?

B. At a picnic, cider is served in cups. If 1 pint will fill 2 cups and 1 quart will fill 4 cups, how many cups can be filled from 2 quarts and 5 pints of cider?

6

A. Write the number that is five and three-tenths:

B. Write the number that is four and fifteen-hundredths:

C. Write the number that is seven hundred ninety five and thirty five-hundredths:

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CYCLE 35

Name _____ Date _____

7

A. List two common properties of the figures:

B. List two different properties of the figures:

8

A. Jim has a yard of string, which he wishes to divide into pieces; each will be $\frac{1}{4}$ of a yard long. How many pieces will he have?

B. Jim has $\frac{1}{2}$ of a yard of string, which he wishes to divide into pieces; each will be $\frac{1}{8}$ of a yard long. How many pieces will he have?

9

A. Shanty bought a music CD that cost $7.55 and gave the clerk a $10 bill. What is the correct change? _____
Show your work:

B. Amy bought a CD that cost $4.75 and gave the clerk a $10 bill. What is the correct change? _____
Show your work:

10

A. Two whole numbers, each greater than 2, are multiplied together. The product is 20. What could the two factors be?

B. Two whole numbers, each greater than 2, are multiplied together. The product is 30. What could the two factors be?

C. Two whole numbers, each greater than 2, are multiplied together. The product is 40. What could the two factors be?

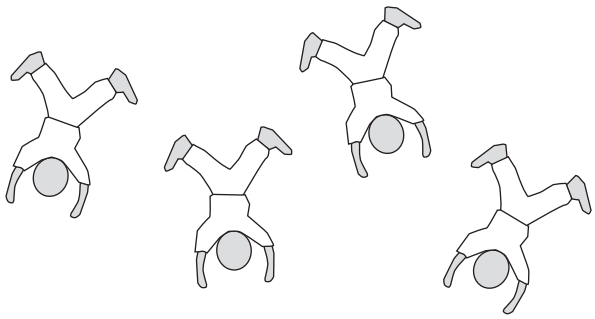
11

Day	Rainfall in cm
Sunday	0.0 cm
Monday	0.6 cm
Tuesday	0.0 cm
Wednesday	1.1 cm
Thursday	0.9 cm
Friday	0.1 cm
Saturday	1.8 cm

The table shows how much rain fell on each day of a week. About how much rain fell during the week?

12

Gymnast Carlos has 1 pair of black pants and 1 pair of white pants. He has 1 black shirt and 1 blue shirt. How many different combinations of outfits does he have? _____
Color his outfits:



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CYCLE 36

Name _____ Date _____

1

A.

$$\begin{array}{r} 426 \\ +\ 366 \\ \hline \end{array} \qquad \begin{array}{r} 443 \\ -\ 407 \\ \hline \end{array}$$

B.

$$\begin{array}{r} 3 \\ \times\ 8 \\ \hline \end{array} \qquad 3\overline{)21}$$

2

Tom's family is taking a trip on which the family plans to drive 300 miles each day. Their trip is 1,793 miles long.

A. About how many days will it take for the trip?

B. The family has already driven 849 miles. How much farther must the family drive?

3

The table shows how much time Ella and Wanda spent on their homework in a week.

Name	Mode	Median	Range
Ella	30 minutes	30 minutes	10–50 minutes
Wanda	40 minutes	40 minutes	10–50 minutes

A. Compare mode minutes to find what the data says about the homework.

B. Compare the range of the data to find who spent a wider range of time on homework.

4

Puppy's Age	Puppy's Weight
1 month	15 lbs
2 months	20 lbs
3 months	25 lbs
4 months	lbs
5 months	lbs

John records the weight of his puppy every month in a chart like the one shown above. If the pattern of the puppy's weight gain continues, how many pounds will the puppy weigh at 4 and 5 months? Fill in the chart.

5

A. At a picnic, cider is served in cups. If 1 gallon will fill 16 cups, how many cups can be filled from 8 gallons of cider?

B. At a picnic, cider is served in cups. If 1 pint will fill 2 cups, how many cups can be filled from 10 pints of cider?

6

A. Write the number that is five and four-tenths:

B. Write the number that is four and thirty-two-hundredths:

C. Write the number that is seven hundred ninety five and sixty three-hundredths:

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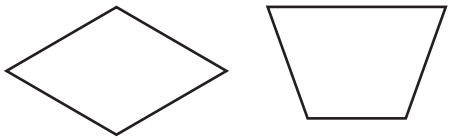
CYCLE 36

Name _____ Date _____

7



A. List two common properties of the figures:

B. List two different properties of the figures:

8

A. Jim has $\frac{3}{4}$ of a yard of string, which he wishes to divide into pieces; each is $\frac{1}{4}$ of a yard long. How many pieces will he have?

B. Jim has $\frac{3}{4}$ of a yard of string which he wishes to divide into pieces; each is $\frac{1}{8}$ of a yard long. How many pieces will he have?

9

A. Shanty bought a book that cost $3.55 and gave the clerk a $5 bill. What is the correct change? _____
Show your work:

B. Amy bought a book that cost $2.75 and gave the clerk a $10 bill. What is the correct change? _____
Show your work:

10

A. Two whole numbers, each greater than 2, are multiplied together. The product is 16. What could the two factors be?

B. Two whole numbers, each greater than 2, are multiplied together. The product is 40. What could the two factors be?

C. Two whole numbers, each greater than 2, are multiplied together. The product is 24. What could the two factors be?

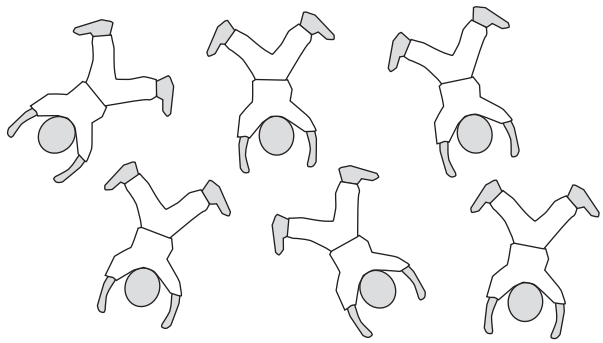
11

Day	Rainfall in cm
Sunday	0.0 cm
Monday	0.6 cm
Tuesday	0.0 cm
Wednesday	0.1 cm
Thursday	0.9 cm
Friday	0.1 cm
Saturday	1.2 cm

The table shows how much rain fell on each day of a week. About how much rain fell during the week?

12

Gymnast Carlos has 1 pair each of black, red, and white pants. He has 1 black shirt and 1 blue shirt. How many different combinations of outfits does he have? _____
Color his outfits:



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CYCLE 37

Name _____ Date _____

1

A. $\begin{array}{r} 334 \\ +\ 683 \\ \hline \end{array}$ $\begin{array}{r} 854 \\ -\ 391 \\ \hline \end{array}$

B. $\begin{array}{r} 4 \\ \times\ 4 \\ \hline \end{array}$ $4\overline{)12}$

2

A. Susan has 88 photographs to put in her album. If 9 photographs will fit on each page, how many pages will she need?

B. Susan has 88 photographs to put in her album. If 10 photographs will fit on each page, how many pages will she need?

C. Susan has 80 photographs to put in her album. If 5 photographs will fit on each page, how many pages will she need?

3

The table shows how much time Lakisha and Dan spent on their homework in a week:

Days	Lakisha	Dan
Monday	60 min.	50 min.
Tuesday	50 min.	60 min.
Wednesday	40 min.	40 min.
Thursday	50 min.	40 min.
Friday	50 min.	40 min.

Fill in the blanks:

Name	Mode	Median	Range
Lakisha			
Dan			

4

In the number sentences below, M = 5. Now solve each number sentence:

A. M + 10 = _____

B. M + 7 = _____

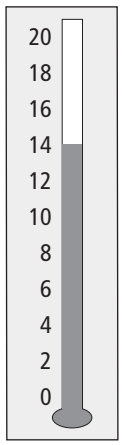
C. M × 3 = _____

D. M × M = _____

E. M – M = _____

5

The Celsius temperature rose from 6 degrees above zero to the temperature shown on the thermometer. How many degrees did the temperature rise?



6

A. Tim was watching TV and heard, "One hundred twenty-four thousand sixty-five books have been donated to the library." Write the number:

B. Tim was watching TV and heard, "Three hundred sixty thousand seventy-five books have been donated to the library." Write the number:

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CYCLE 37

Name _____ Date _____

7

Using a ruler and a protractor:

A. Draw a right angle—an angle that is 90°.

B. Draw an obtuse angle—an angle that is larger than 90°.

C. Draw an acute angle: an angle that is smaller than 90°.

8

On the portion of the number line below, a dot shows $\frac{1}{2}$.

Use another dot "A" to show $\frac{3}{4}$.

Use another dot "B" to show $\frac{1}{4}$.

9

A. Ella wants to buy 2 notebooks that cost $2.79 each, including tax. If she has $1 bills and no coins, how many $1 bills does she need?

B. Ella wants to buy 3 notebooks that cost $3.69 each, including tax. If she has $1 bills and no coins, how many $1 bills does she need?

10

A. Two students bought exactly enough pens to share equally among themselves. Which of the following could be the number of pens they bought? 11, 12, 13, 15

B. Five students bought exactly enough pens to share equally among themselves. Which of the following could be the number of pens they bought? 11, 12, 13, 14, 15

C. Nine students bought exactly enough pens to share equally among themselves. Which of the following could be the number of pens they bought? 32, 33, 34, 35, 36

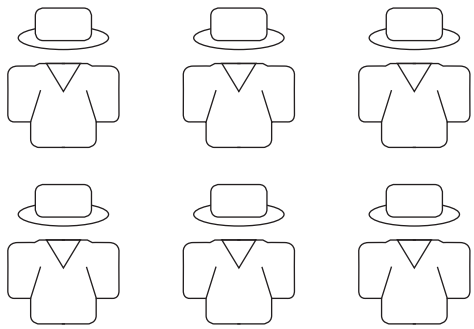
11

A. Mrs. James bought 6 pints of berries. Each pint cost 97¢. About how many $1 bills does she need to pay?

B. Mrs. James bought 10 pints of berries. Each pint cost 97¢. She has one $10 bill. Is it enough to pay for the berries?

12

Amanda has 3 shirts: 1 white, 1 pink, and 1 black. She also has 2 hats: 1 red and 1 black. How many different combinations of hats and shirts can she make? _____



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CYCLE 38

Name _____ Date _____

1

A. $\begin{array}{r} 358 \\ +\ 683 \\ \hline \end{array}$ $\begin{array}{r} 854 \\ -394 \\ \hline \end{array}$

B. $\begin{array}{r} 4 \\ \times\ 8 \\ \hline \end{array}$ $4\overline{)8}$

2

A. Forty-two children signed up for basketball. You want to make groups of 6. How many groups can you make?

B. Fifty-two children signed up for basketball. You want to make groups of 6. How can you solve this problem?

3

The table shows how much time Lakisha and Dan spent on their homework in a week.

Name	Mode	Median	Range
Lakisha	50 minutes	50 minutes	40–60 minutes
Dan	40 minutes	40 minutes	40–60 minutes

A. Compare mode minutes to find what you can say about the students' homework time.

B. Compare the range of the data to find who spent a wider range of time on homework.

4

In the number sentences below, M = 9. Now solve each number sentence:

A. M + 20 = _____

B. M + M = _____

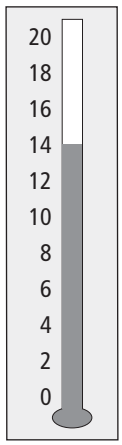
C. M × 5 = _____

D. M × M = _____

E. M – M = _____

5

The Celsius temperature rose from 8 degrees above 0 to the temperature shown on the thermometer. How many degrees did the temperature rise?



6

A. Tim was watching TV and heard, "Seven million two hundred twenty-four thousand books have been donated to the library." Write the number:

B. Tim was watching TV and heard, "Twelve million three hundred sixty thousand books have been donated to the library." Write the number:

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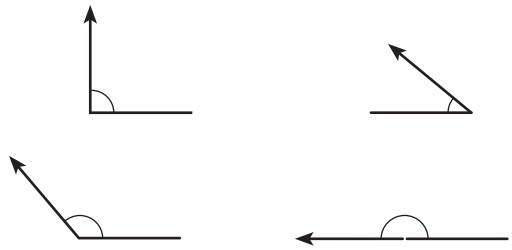
CYCLE 38

Name _____ Date _____

7



Write R next to the right angles in the above picture.

Write O next to the obtuse angles.

Write A next to the acute angles.

Write S next to the straight angles.

8

On the portion of the number line below, a dot shows $\frac{1}{2}$.

Use another dot "A" to show $\frac{2}{8}$.

Use another dot "B" to show $\frac{6}{8}$.

9

A. Ella wants to buy 2 notebooks that cost \$2.90 each, including tax. If she has \$1 bills and no coins, how many \$1 bills does she need?

B. Ella wants to buy 3 notebooks that cost \$5.70 each, including tax. If she has \$1 bills and no coins, how many \$1 bills does she need?

10

A. Six students bought exactly enough pens to share equally among themselves. Which of the following could be the number of pens they bought? 40, 41, 42, 43

B. Seven students bought exactly enough pens to share equally among themselves. Which of the following could be the number of pens they bought? 40, 41, 42, 43

C. Eight students bought exactly enough pens to share equally among themselves. Which of the following could be the number of pens they bought? 41, 45, 47, 48

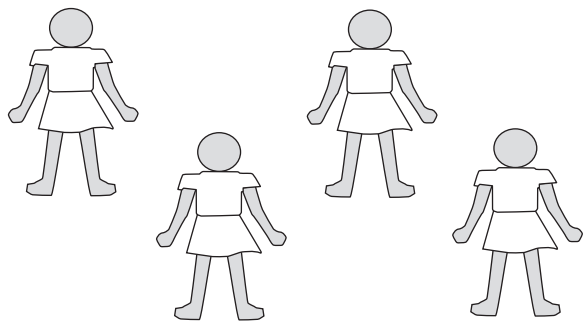
11

A. Mrs. James bought 5 pints of berries. Each pint cost 97¢. About how many \$1 bills does she need to pay?

B. Mrs. James bought 20 pints of berries. Each pint cost 97¢. She has one \$20 bill. Is it enough to pay for the berries?

12

Wanda has 1 yellow skirt and 1 pink skirt and 1 red shirt and 1 pink shirt. How many different combinations of outfits can Wanda have? _____ Color her outfits:



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CYCLE 39

Name _____ Date _____

1

A. $774 + 287$ $\qquad$ $754 - 591$

B. 4×6 $\qquad$ $4\overline{)28}$

2

Hot dogs often come in packages of 10. Buns come in packages of 8. Each person needs at least 1 hot dog and 1 bun. If we want to buy enough hot dogs and buns for 19 people for a picnic, how many packages of each do we need to buy?

3

Amanda got 90, 80, 100, and 90 points for 4 math tests. Her report card shows 90 for her math score. The 90 is the "average" or "mean" score for her math test. To find average, you add up all scores (90 + 80 + 100 + 90 = 360) and then divide by the number of tests, which is 4 (360 ÷ 4 = 90).

A. Three children's weights are 40 kg, 30 kg, and 20 kg. What is the children's average weight? _____

B. John has $10 and Amy has $12. What is the average amount they have? _____

4

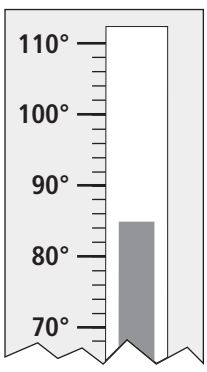
The table below shows how the chirping of a cricket is related to the temperature outside.

Number of Chirps per Minute	Temperature
144	76°
152	78°
160	80°
168	82°
176	84°

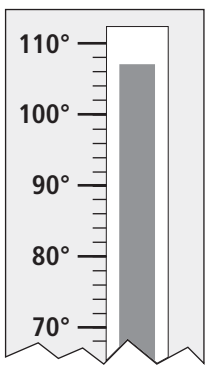
If the pattern stays the same, what would be the number of chirps per minute when the temperature outside is 88°?

5

What are the temperatures shown on the thermometers:



A. ____ degrees



B. ____ degrees

6

A. By how much would 217 be increased if the digit 1 was replaced by a 5?

B. By how much would 217 be increased if the digit 2 was replaced by a 5?

C. By how much would 217 be decreased if the digit 7 was replaced by a 2?

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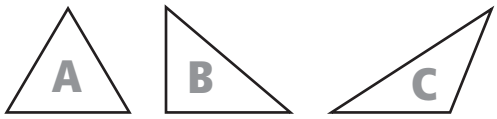
CYCLE 39

Name _____ Date _____

7



Write the properties of the three triangles:

	A	B	C
Number of right angles			
Number of acute angles			
Number of obtuse angles			
Name			

8

Students were asked to tell why $\frac{2}{3}$ is greater than $\frac{1}{2}$. Explain the reason using a picture, word, or numbers:

9

Jim bought an ice-cream cone for a total of $2.80. He gave the salesperson a $5 bill. The salesperson gave him $2.20 in change. Is the change correct? _____ Explain:

10

2 is a prime number because 2 has only 1 and itself as factors.

A. List another prime number and explain why that number is a prime number:

B. List another prime number and explain why that number is a prime number:

C. List another prime number and explain why that number is a prime number:

11

A. A restaurant bought 100 dozen eggs at $0.89 per dozen. About how much was the total cost of the eggs?

B. A restaurant bought 50 dozen eggs at $0.99 per dozen. About how much was the total cost of the eggs?

12

Underline the appropriate answer for each of the 3 questions.

If you pick 1 marble, without looking, from a bag with 2 black and 8 white marbles:

A. The chance of getting a black or a white marble is: (impossible, certain, more likely, less likely).

B. The chance of getting a white marble is: (certain, more likely, less likely).

C. The chance of getting a black marble is: (certain, more likely, less likely).

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CYCLE 40

Name _____ Date _____

1

A. $884 + 288$ $\qquad$ $854 - 591$

B. 4×9 $\qquad$ $4\overline{)40}$

2

A. Ms. Smith formed teams of 4 students each from the 22 students in her class. She formed as many teams as possible, and the students who were left over were substitutes. How many students were substitutes?

B. Ms. John formed teams of 5 students each from the 22 students in her class. She formed as many teams as possible, and the students who were left over were substitutes. How many students were substitutes?

3

A. Two children's heights are 1 m 20 cm and 1 m 40 cm. What is the mean (average) height for the 2 children?

B. Daisy has 14 dolls. Beth has 20 dolls. What is the average number of dolls that the girls have?

C. Three children's weights are 40 kg, 42 kg, and 38 kg. What is the average weight of the children?

4

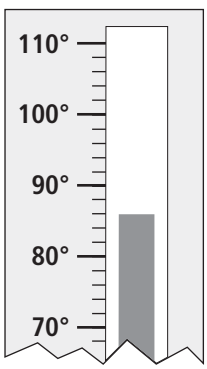
The table below shows how the chirping of a cricket is related to the temperature outside.

Number of Chirps per Minute	Temperature
144	76°
152	78°
160	80°
168	82°
176	84°

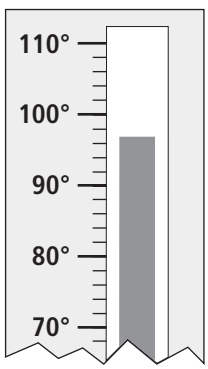
If the pattern stays the same, what would be the number of chirps per minute when the temperature outside is 90°?

5

What are the temperatures shown on the thermometers:



A. ____ degrees



B. ____ degrees

6

A. By how much would 217 be increased if the digit 1 was replaced by a 7?

B. By how much would 217 be increased if the digit 2 was replaced by a 6?

C. By how much would 217 be decreased if the digit 7 was replaced by a digit 1?

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CYCLE 40

Name _____ Date _____

7

Using a ruler, draw:

A. A right triangle:

B. An acute triangle:

C. An obtuse triangle:

8

Students were asked to tell why $\frac{2}{4}$ is equivalent to $\frac{1}{2}$. Explain the reason using a picture, word, or numbers:

9

Jim and his mom bought 2 ice-cream cones for a total of $5.80. He gave the salesperson a $10 bill. The salesperson gave him $3.20 in change. Is the change correct? _____ Explain:

10

3 is a prime number because 3 has only 1 and itself as factors.

A. List another prime number and explain why that number is a prime number:

B. List another prime number and explain why that number is a prime number:

C. List another prime number and explain why that number is a prime number

11

A. A restaurant bought 70 dozen eggs at $0.99 per dozen. About how much money was the total cost of the eggs?

B. A restaurant bought 40 dozen eggs at $0.99 per dozen. About how much money was the total cost of the eggs?

12

Underline the appropriate answer for each of the 3 questions.

If you pick 1 marble, without looking, from a bag with 10 black and 2 white marbles:

A. The chance of getting a black or a white marble is: (impossible, certain, more likely, less likely).

B. The chance of getting a white marble is: (certain, more likely, less likely).

C. The chance of getting a black marble is: (certain, more likely, less likely).

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CYCLE 41

Name _____ Date _____

1

A. $\begin{array}{r} 774 \\ +\ 287 \\ \hline \end{array}$ $\begin{array}{r} 754 \\ -\ 591 \\ \hline \end{array}$

B. $\begin{array}{r} 5 \\ \times\ 5 \\ \hline \end{array}$ $5\overline{)15}$

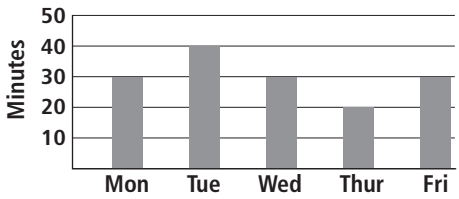
2

A. Every hour, Susan's father's company makes 8,400 paper plates and puts them in packages of 200 plates each. How many packages are made in one hour?

B. Every hour, a company makes 8,400 paper plates and puts them in packages of 400 plates each. How many packages are made in one hour?

3

Jan walked every day for one week. The bar graph shows the number of minutes she walked each day.



A. Jan's mode for how long she walked each day: _____minutes.

B. Jan's average (mean) for how long she walked each day: _____minutes.

4

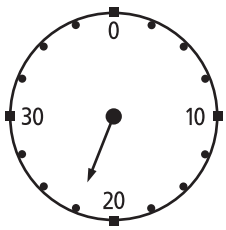
A. Lee delivers newspapers every day. Write a number sentence for the total number of newspapers that Lee delivers in 5 days. Use N for the number of newspapers.
Total number =

B. Lee delivers newspapers every day. Write a number sentence for the total number of newspapers that Lee delivers in 30 days. Use T for the number of newspapers.
Total number =

5

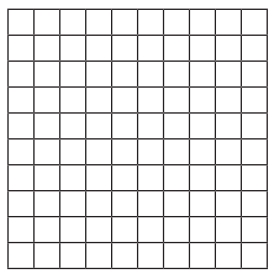
A. Below is a scale showing weight in pounds. What is the weight shown on the scale? _____

B. Draw a needle on the scale that shows 32.5 pounds.

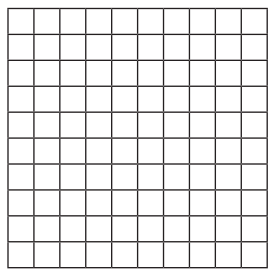


6

A. Color in 3 tenths of this picture.



B. Color in 3 hundredths of this picture.



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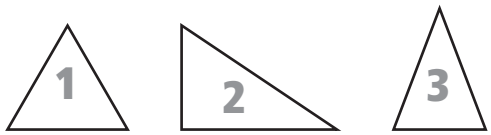
CYCLE 41

Name _____ Date _____

7



Using a ruler, measure the lengths of the sides of the triangles. Match each to its description.

A. _____ I have three sides, all of different lengths. I am a scalene triangle.

B. _____ I have two sides that are the same length and one side that is different from the other two sides. I am an isosceles triangle.

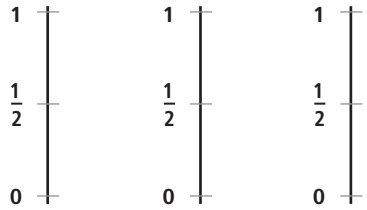
C. _____ All three of my sides are equal lengths. I am an equilateral or regular triangle.

8

The table shows the amount of rainfall on 3 days:

	Mon	Tue	Wed
Rainfall in inches	$\frac{1}{4}$ inch	$\frac{5}{8}$ inch	$\frac{2}{4}$ inch

Mark the rainfalls on the number lines below.



The heaviest rainfall was on _____

9

Jane goes to a school book fair with $20 to spend. She wants to buy books that cost $5.10, $4.30, $3.60, and $5.10. Does she have enough money to buy the books? _____
Show your work using the estimation method:

10

The factors of 6 are (1, 2, 3, 6).
The factors of 7 are (1, 7).

A. List the factors of 8: ( )

B. List the factors of 9: ( )

C. List the factors of 10: ( )

D. List the factors of 11: ( )

E. List the factors of 12: ( )

11

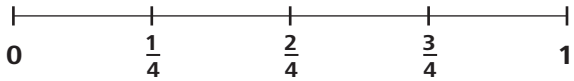
A. Sam takes a 2-mile walk along a trail. Which of the following is a reasonable amount of time for Sam to walk the trail?

a. 60 seconds
b. 60 minutes
c. 60 hours
d. 60 days

B. Sam takes a 4-mile walk along a trail. Which of the following is a reasonable amount of time for Sam to walk the trail?

a. 20 minutes
b. 2 hours
c. 2 days

12



You reach into a bag with 1 red, 1 white, and 2 blue marbles and pick 1 without looking.

Write ① on the number line for the chance of getting a red marble.

Write ② on the number line for the chance of getting a blue marble.

Write ③ on the number line for the chance of getting a blue, red, or white marble.

Write ④ on the number line for the chance of getting a black marble.

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CYCLE 42

Name _____ Date _____

1

A.
$$\begin{array}{r} 664 \\ +\ 286 \\ \hline \end{array} \qquad \begin{array}{r} 654 \\ -\ 591 \\ \hline \end{array}$$

B.
$$\begin{array}{r} 5 \\ \times\ 7 \\ \hline \end{array} \qquad 5\overline{)40}$$

2

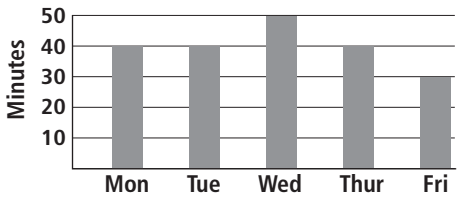
Tim's classroom has 5 large boxes of crayons and 10 small boxes of crayons. Each large box has 12 crayons and each small box has 6 crayons.

A. How many crayons does Tim's class have?

B. Each student needs 5 crayons. How many students can have 5 crayons?

3

Ling walked every day for 1 week. The bar graph shows the number of minutes he walked each day.



A. Ling's mode for how long he walked each day: _____ minutes

B. Ling's average (mean) for how long he walked each day: _____ minutes

4

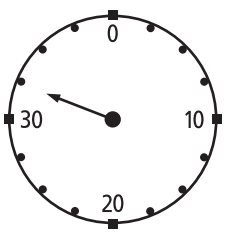
A. Lee delivers newspapers every day. Write a number sentence showing the total number of newspapers that Lee delivers in 5 days. Use N for the number of newspapers.
Total number =

B. Lee delivers newspapers every day. Write a number sentence showing the total number of newspapers that Lee delivers in 45 days. Use T for the number of newspapers.
Total number =

5

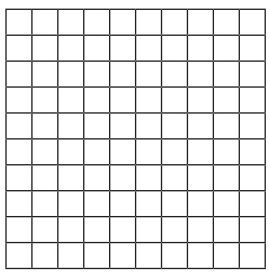
A. What is the weight shown on the scale?

B. Draw a needle that shows 35 pounds on the scale.

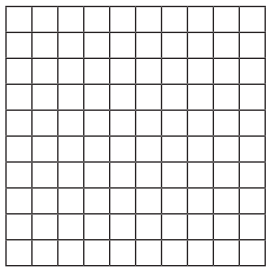


6

A. Color in 2 tenths of this picture.



B. Color in 2 hundredths of this picture.



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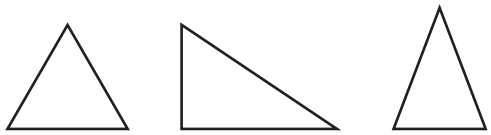
CYCLE 42

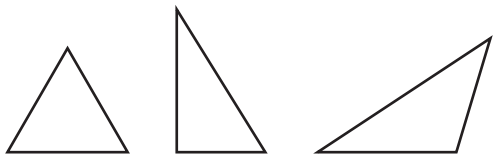
Name _____ Date _____

7

A. Label each triangle: SC for scalene, IS for isosceles, and EQ for equilateral:



B. Label each triangle: RI for right triangle, AC for acute, and OB for obtuse:

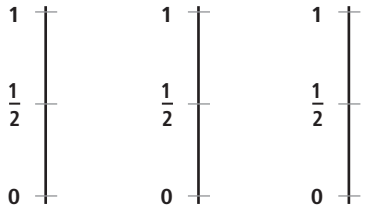


8

The table shows the amount of rainfall on 3 days:

	Mon	Tue	Wed
Rainfall in inches	$\frac{1}{4}$ inch	$\frac{3}{5}$ inch	$\frac{2}{3}$ inch

Mark the rainfalls on the number lines below.



The heaviest rainfall was on _____

9

A. Matthew wants to buy a cap for \$12.70, a baseball jersey for \$23.80 and a poster for \$4.67. Estimate his total cost by rounding the prices to the nearest \$1.00.

B. Matthew wants to buy 5 caps for \$8.70 for each cap. Estimate his total cost by rounding the price of each cap to the nearest \$1.00.

10

The factors of 6 are (1, 2, 3, 6).
The factors of 7 are (1, 7).

A. List the factors of 3: ( )

B. List the factors of 4: ( )

C. List the factors of 5: ( )

D. List the factors of 13: ( )

E. List the factors of 14: ( )

11

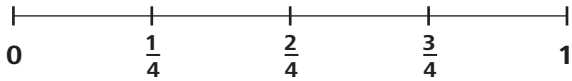
A. Sam takes a 3-mile walk along a trail. Which of the following is a reasonable amount of time for Sam to walk the trail?

a. 15 minutes
b. 1.5 hours
c. 1.5 days

B. Sam takes a 1-mile walk along a trail. Which of the following is a reasonable amount of time for Sam to walk the trail?

a. 30 minutes
b. 1 hour
c. 1 day

12



You reach into a bag with 1 red, 1 white, and 2 blue marbles and pick 1 without looking.

Write ① on the number line for the chance of getting a red marble.

Write ② on the number line for the chance of getting a blue marble.

Write ③ on the number line for the chance of getting a blue, red, or white marble.

Write ④ on the number line for the chance of getting a black marble.

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CYCLE 43

Name _____ Date _____

1

A. $554 + 285$ $\qquad$ $554 - 191$

B. 5×9 $\qquad$ $5\overline{)30}$

2

A. A movie starts at 4:10 and ends at 6:00. How long is the movie?

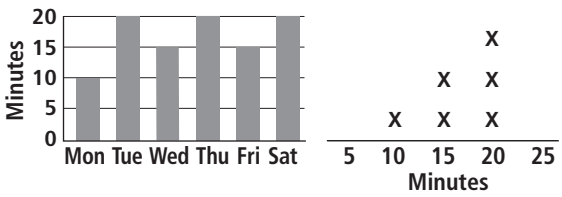
_____ hour(s) _____ minutes

B. An action movie starts at 4:30 and ends at 6:40. How long is the movie?

_____ hour(s) _____ minutes

3

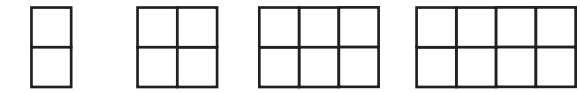
Jan walked every day for one week and used the same data to make a bar graph and a line plot:



A. Jan's mode for how long she walked each day = _____minutes

B. What information can the bar graph show that the line graph does not?

4



Look at the pattern of the squares as the number of squares increases in each figure.

A. How many squares are in Figure 5? _____

B. What is the rule of the pattern?

C. In the following number sentence, N stands for the figure number and T stands for the total number of squares in figure N. Complete the number sentence showing the number of squares in a figure:

T = _____

5

A. Name two things that are usually measured in feet:

1.

2.

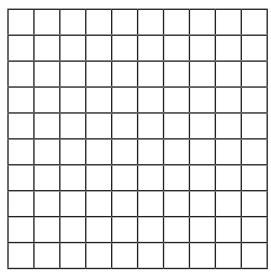
B. Name two things that are usually measured in yards:

1.

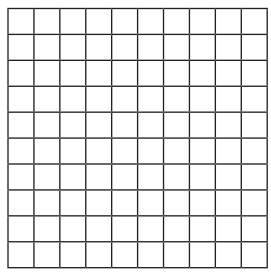
2.

6

A. Color in 1 tenth of this picture.



B. Color in 12 hundredths of this picture.



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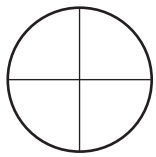
CYCLE 43

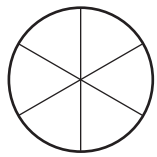
Name _____ Date _____

7

Using a ruler, draw: (A) a scalene triangle, (B) an isosceles triangle, (C) an equilateral or regular triangle:

8





A. The first circle is divided into _____ths. Shade $\frac{2}{4}$.

B. The second circle is divided into _____ths. Shade $\frac{3}{6}$.

C. Select a symbol that makes the number sentence true: $\frac{2}{4}$ (< > =) $\frac{3}{6}$.

9

A. Mrs. Jones bought 6 pints of berries. Each pint cost 87¢. Mrs. Jones used her calculator to find the cost of the berries and the display showed 522. What was the cost of the berries in dollars?

B. Mrs. Jones bought 10 pints of berries. Each pint cost 87¢. Mrs. Jones used her calculator to find the cost of the berries and the display showed 870. What was the cost of the berries in dollars?

10

Multiples of 2 can go on forever: 2, 4, 6 , 8, …

A. List 4 multiples of 3: _____

B. List 4 multiples of 4: _____

C. List 4 multiples of 5: _____

D. List 4 multiples of 9: _____

E. List 4 multiples of 6: _____

11

The product of 1.9 × 2 is about 4.

A. The product of 1.9 × 3 is about _____.

B. The product of 1.9 × 5 is about _____.

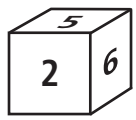
C. The product of 1.9 × 8 is about _____.

D. The product of 1.9 × 10 is about _____.

E. The product of 1.9 × 11 is about _____.

12

A cube has 6 faces and they are numbered 1 through 6.



The probability of tossing the cube and getting 1 on the top when it lands is 1 out of 6 or $\frac{1}{6}$.

A. The probability of getting 4 on the top when it lands is:
_____ out of _____ or ☐

B. The probability of getting either 1 or 2 on the top when it lands is:
_____ out of _____ or ☐

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CYCLE 44

Name _____ Date _____

1

A. $444 + 284$ $\qquad$ $754 - 591$

B. 5×4 $\qquad$ $5\overline{)50}$

2

A. A movie starts at 3:10 and ends at 6:00. How long is the movie?

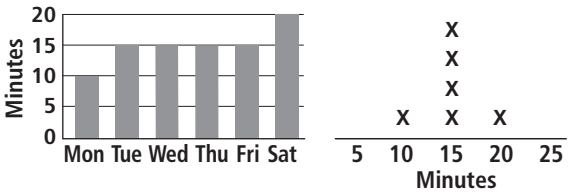
_____hour(s) _____minutes

B. An action movie starts at 5:30 and ends at 7:00. How long is the movie?

_____hour(s) _____minutes

3

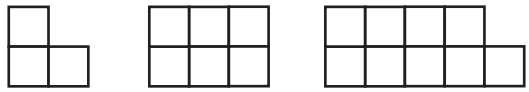
Jan walked every day for one week. This bar graph and line plot show the number of minutes she walked:



A. Jan's mode for how long she walked each day =_____ minutes

B. What information can the bar graph show that the line graph does not?

4



Look at the pattern of the squares as the number of squares increases in each figure.

A. How many squares are in figure 4? _____

B. What is the rule of the pattern?

C. In the following number sentence, N stands for the figure number and T stands for the total number of squares in figure N. Complete the number sentence showing the number of squares in a figure:
T = _____

5

A. My height is about:

_____feet _____inches

B. My teacher's height is about:

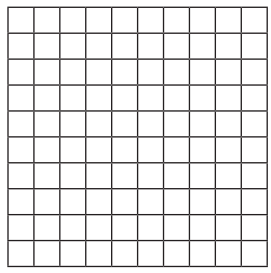
_____feet _____inches

C. The height of our classroom is about:

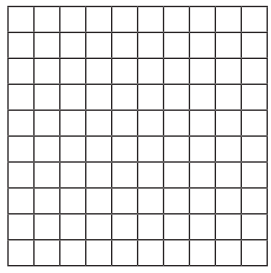
_____yards

6

A. Color in 5 tenths of this picture.



B. Color in 5 hundredths of this picture.



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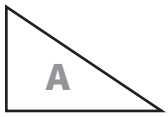
CYCLE 44

Name _____ Date _____

7

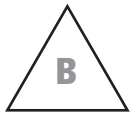
Each triangle has two names: by angles (right, acute, and obtuse) and by sides (equilateral, isosceles, and scalene).

Write two names for each triangle:



1.

2.



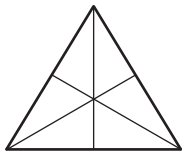
1.

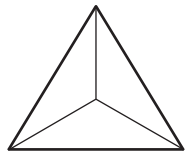
2.

1.

2.

8





A. The first triangle is divided into _____ths. Shade $\frac{2}{6}$.

B. The second triangle is divided into _____ths. Shade $\frac{1}{3}$.

C. Select a symbol to make the number sentence true: $\frac{2}{6}$ (< > =) $\frac{1}{3}$.

9

A. Mrs. Jones bought 8 pints of berries. Each pint cost 87¢. Mrs. Jones used her calculator to find the cost of the berries and the display showed 696. What was the cost of the berries in dollars?

B. Mrs. Jones bought 12 pints of berries. Each pint cost 87¢. Mrs. Jones used her calculator to find the cost of the berries and the display showed 1044. What was the cost of the berries in dollars?

10

Multiples of 2 can go on forever: 2, 4, 6, 8,…

A. List 4 multiples of 7: _____

B. List 4 multiples of 8: _____

C. List 4 multiples of 10: _____

D. List 4 multiples of 11: _____

E. List 4 multiples of 12: _____

11

The product of 2.9 x 2 is about 6.

A. The product of 2.9 x 3 is about _____.

B. The product of 2.9 x 5 is about _____.

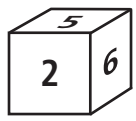
C. The product of 2.9 x 8 is about _____.

D. The product of 2.9 x 10 is about _____.

E. The product of 2.9 x 11 is about _____.

12

A number cube has 6 faces and they are numbered 1 through 6.



The probability of tossing the cube and getting 5 on the top when it lands is 1 out of 6 or $\frac{1}{6}$.

A. The probability of getting 2 on the top when it lands is:
_____ out of _____ or ☐

B. The probability of getting an even number on the top is:
_____ out of _____ or ☐

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CYCLE 45

Name _____ Date _____

1

A.

$$\begin{array}{r} 5{,}847 \\ +\ 2{,}497 \\ \hline \end{array} \qquad \begin{array}{r} 6{,}772 \\ -\ 1{,}261 \\ \hline \end{array}$$

B.

$$\begin{array}{r} 60 \\ \times\ 4 \\ \hline \end{array} \qquad 6\overline{)42}$$

2

A candy store wants to divide 20 pounds of candy into 1-pound containers and 2-pound containers. Jim divided 20 pounds of candy into the containers in the following ways:

(1) 20 1-pound containers

(2) 10 2-pound containers

(3) 10 1-pound containers and 5 2-pound containers

A 1-pound box of candy sells for $4, and a 2-pound box sells for $7. Which of the three ways of packaging the candy is the most profitable?

3

A. Bob sold tickets on 5 days and the median number of tickets he sold was 10. Make a list of the number of tickets he sold for 5 days so that the median number of tickets is 10:

B. Bob sold tickets on 5 days and the average number of tickets he sold was 7. Make a list of the number of tickets he sold for 5 days so that the average number of tickets is 7:

4

In	3	5	10	15	7
Out	6	10	20		

A. Fill in the blanks in the "Out" row.

B. What is the rule used in the table to get the numbers in the "Out" row from the numbers in the "In" row?

C. In the following number sentence, N stands for the numbers in the "In" row. Complete the number sentence below:

The numbers in the "Out" row = N _____

5

This is 1 cm^2 (square centimeter).
The length of one side is 1 cm.
The perimeter of the square is 4 cm.

Area = _____ cm^2

Perimeter = _____ cm

6

A. Arrange the numbers from largest to smallest: 4.03; 4.3; 4.003

B. Arrange the numbers from largest to smallest: 40.013; 40.103; 40.13

C. Arrange the numbers from largest to smallest: 14.023; 14.135; 14.043

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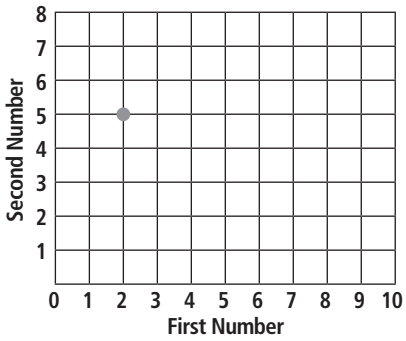
CYCLE 45

Name _____ Date _____

7



The coordinates of the point are (2,5) Write coordinates of 3 more points so that the connection of the 4 points makes a square:

(2, 5); ( ); ( ); ( )

8

Using a ruler, draw line segments for the addition of fractions and get the answers:

A. $1\frac{2}{4} + \frac{1}{4} =$ _____ inches

*

B. $\frac{2}{4} + 1\frac{2}{4} =$ _____ inches

*

C. $\frac{3}{8} + \frac{3}{8} =$ _____ inches

*

9

Mario bought 3 items and paid with a $10 bill. He received two $1 bills in change. What are the 3 items that Mario could have bought? Circle the 3 items in the box.

Crayon	$2.00
Notebook	$1.20
Marker	$0.50
Poster	$5.00
Card	$1.00

10

A. A whole number is multiplied by 5. Which of these could be the result?

24 25 26 27

B. Which one is the multiple of 6?

24 25 26 27

C. Which one is the multiple of 7?

13 14 15 16

11

A. The quotient of 190 ÷ 2 is about:

a. 9
b. 90
c. 900

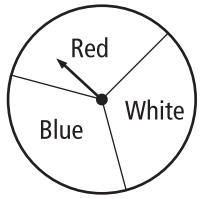
B. The quotient of 190 ÷ 3 is about:

a. 6
b. 60
c. 600

12

A. If the spinner below lands on red, you win. If the spinner does not land on red, your friend wins. What is the probability of you winning?

B. What is the probability of your friend winning?



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CYCLE 46

Name _____ Date _____

1

A.

$$\begin{array}{r} 7{,}747 \\ +\ 2{,}497 \\ \hline \end{array} \qquad \begin{array}{r} 6{,}772 \\ -\ 4{,}261 \\ \hline \end{array}$$

B.

$$\begin{array}{r} 61 \\ \times\ 5 \\ \hline \end{array} \qquad 6\overline{)24}$$

2

A candy store wants to divide 10 pounds of candy into 1-pound containers, 2-pound containers, or a combination of the two kinds of containers. Find at least 3 ways to divide 10 pounds of candy into the containers:

1.

2.

3.

3

A. Bob sold tickets on 5 days and the median number of tickets he sold was 5. Make a list of the number of tickets he sold for 5 days so that the median number of tickets is 5:

B. Bob sold tickets on 5 days and the mean (average) number of tickets he sold was 20. Make a list of the number of tickets he sold for 5 days so that the mean number of tickets is 20:

4

In	4	5	10	15	7
Out	12	15	30		

A. Fill in the blanks in the "Out" row.

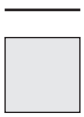
B. What is the rule used in the table to get the numbers in the "Out" row from the numbers in the "In" row?

C. In the following number sentence, N stands for the numbers in the "In" row. Complete the number sentence below:

The numbers in the "Out" row = N _____

5

The line segment is 1 cm and the square is 1 cm^2.



A. Write one common property between the 2 figures:

B. Write one different property between the 2 figures.

6

A. Arrange the numbers from largest to smallest: 50.03, 50.3, 51.003

B. Arrange the numbers from largest to smallest: 40.001, 40.103, 40.131

C. Arrange the numbers from largest to smallest: 14.003, 14.105, 14.103

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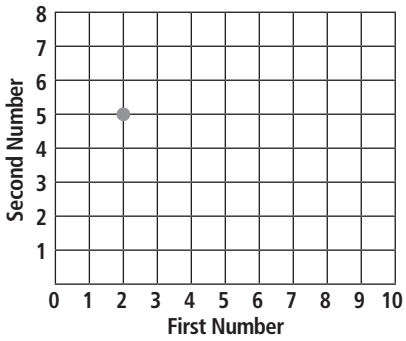
CYCLE 46

Name _____ Date _____

7



The coordinates of the point are (2,5) Write coordinates of 3 more points so that the connection of the 4 points makes a rectangle:

(2, 5); ( ); ( ); ( )

8

Sue added two fractions and got $\frac{2}{4} + \frac{1}{4} = \frac{3}{8}$.
Is Sue correct? _____
If not, change the answer and explain your answer using any model or illustration.

9

Sam bought 4 items and paid with a $10 bill. He received two $1 bills in change. What are the 4 items that Sam could have bought? Circle the 4 items in the box.

Crayon	$2.00
Notebook	$1.50
Marker	$0.50
Poster	$5.00
Card	$1.00

10

A. A whole number is multiplied by 5. Which of these could be the result?

124 125 126 127

B. Which one is the multiple of 6?

124 125 126 127

C. Which one is the multiple of 7?

25 26 27 28

11

A. The quotient of 141 ÷ 2 is about:

a. 7
b. 70
c. 700

B. The quotient of 242 ÷ 3 is about:

a. 8
b. 80
c. 800

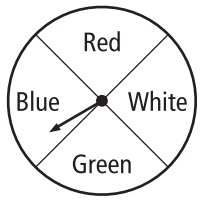
12

A. What fraction of the circle is red?

B. What is probability of the spinner landing on red?

C. What fraction of the circle is white?

D. What is the probability of the spinner landing on white?



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CYCLE 47

Name _____ Date _____

1

A. If $N = 50$,

then $N \div 5 =$ _____

If $(N \times 3) = 30$,

then $(N \times 3) + 5 =$ _____

B. $\begin{array}{r} 72 \\ \times\ 7 \\ \hline \end{array}$ $\qquad 7\overline{)56}$

2

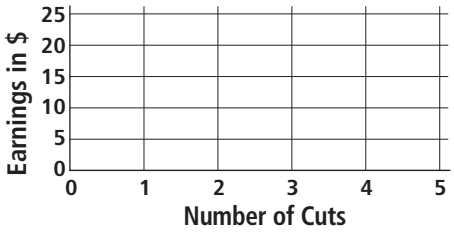
Jets travel an average of 500 miles per hour. People walk an average of 5 miles per hour. About how many miles per hour faster do airplanes travel than people who are walking?

3

Sam earns $5 each time he cuts the grass for his neighbor. Complete the table:

Number of cuts	0	1	2	3	4	5
Earnings in $	0	$5	$10			

Make a line graph using the data in the table:



4

Example: If N stands for a number, then:
$N + N + N + N = 4 \times N$ or $4N$

A. S + S + S + S = _____ or _____

B. T + T + T + T = _____ or _____

C. R + R + R + R = _____ or _____

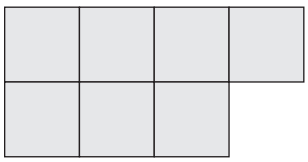
D. R + R + R = _____ or _____

E. R + R = _____ or _____

5

Find the area and perimeter of the figures:

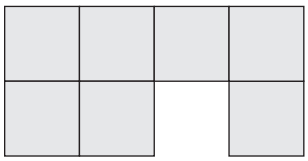
A.



Area = ___ cm^2

Perimeter = ___ cm

B.



Area = ___ cm^2

Perimeter = ___ cm

6

A. Mike's running record was 27.34 seconds. Sue ran one-hundredth of a second slower than Mike's record. What was Sue's record?

B. Mike's running record was 27.34 seconds. Tyrone ran one-hundredth of a second faster than Mike's record. What was Tyrone's record?

C. Mike's running record was 27.34 seconds. Lonnie ran two-hundredths of a second faster than Mike's record. What was Lonnie's record?

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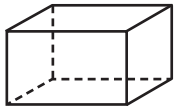
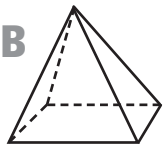
CYCLE 47

Name _____ Date _____

7

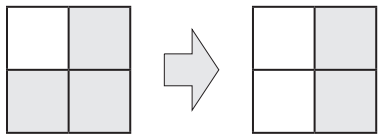
A 

B 

Write the properties of each shape:

	A	B
Number of faces		
Name of the faces/ shapes		
Number of edges		
Number of vertexes		
Name of the figure		

8



The picture shows that $\frac{1}{4}$ of a piece of chocolate is removed from $\frac{3}{4}$, and $\frac{2}{4}$ of the chocolate is left over: $\frac{3}{4} - \frac{1}{4} = \frac{2}{4}$

Using the picture, solve $\frac{3}{4} - \frac{2}{4} =$

9

Write the total value of each group of coins:

A. 3 quarters, 2 dimes, 3 nickels, and 12 pennies:

B. 4 quarters, 6 dimes, 2 nickels, and 2 pennies:

C. 5 quarters, 2 dimes, 1 nickel, and 4 pennies:

10

A. Circle the prime number that is a factor of 20: 2 3 7 12

B. Circle the prime number that is a factor of 20: 5 10 20 40

C. Circle the prime number that is a factor of 50: 4 5 10 20

D. Circle the prime number that is a factor of 18: 3 6 5 20

11

A. The quotient of 179 ÷ 2 is about:

- **a.** 9
- **b.** 90
- **c.** 900

B. The quotient of 178 ÷ 3 is about:

- **a.** 6
- **b.** 60
- **c.** 600

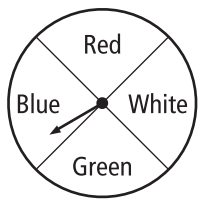
12

A. What fraction of the circle is red and white combined?

B. What is probability of the spinner landing on red or white?

C. What fraction of the circle is white and blue combined?

D. What is the probability of the spinner landing on white or blue?



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CYCLE 48

Name _____ Date _____

1

A. If $N = 40$,

then $N \times 5 =$ _____

If $(N \times 3) = 300$,

then $(N \times 3) - 100 =$ _____

B. $\begin{array}{r} 81 \\ \times\ 8 \\ \hline \end{array}$ $8\overline{)72}$

2

The human heart pumps about 24 liters of blood in 5 minutes.

A. How many liters of blood are pumped in 30 minutes?

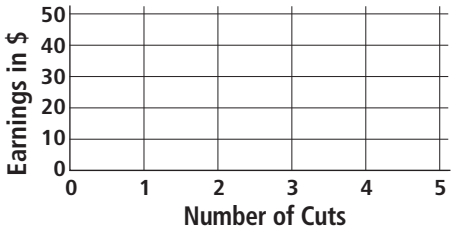
B. How many liters of blood are pumped in 1 hour?

3

Sam earns $10 each time he cuts the grass for his neighbor. Complete the table:

Number of cuts	0	1	2	3	4	5
Earnings in $	0	$10	$20			

Make a line graph using the data in the table:



4

Example: If N stands for a number, then:
5 N = N + N + N + N + N

A. 3 R = _____

B. 4 R = _____

C. 2 S = _____

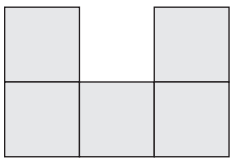
D. 3 M = _____

E. 4 B = _____

5

Find the area and perimeter of the figures:

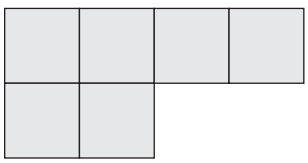
A.



Area = ___ cm^2

Perimeter = ___ cm

B.



Area = ___ cm^2

Perimeter = ___ cm

6

A. Mike's running record was 28.35 seconds. Sue ran one-hundredth of a second slower than Mike's record. What was Sue's record?

B. Mike's running record was 43.12 seconds. Tyrone ran one-hundredth of a second faster than Mike's record. What was Tyrone's record?

C. Mike's running record was 27.46 seconds. Lonnie ran two-hundredths of a second faster than Mike's record. What was the Lonnie's record?

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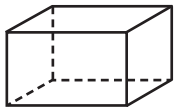
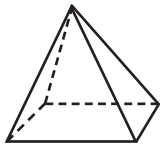
CYCLE 48

Name _____ Date _____

7





Write two properties that are common to the two figures:

Write two properties that are different between the two figures:

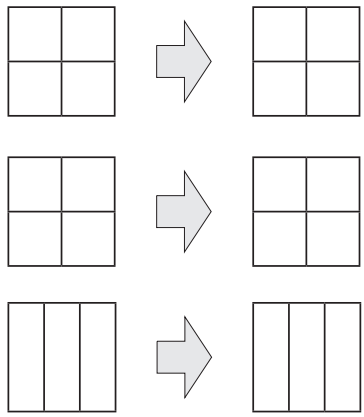
8

Using the pictures, solve the subtraction problems:

A. $\frac{3}{4} - \frac{1}{4} =$

B. $\frac{3}{4} - \frac{2}{4} =$

C. $\frac{2}{3} - \frac{1}{3} =$



9

Write the total value of each group of coins:

A. 2 quarters, 2 dimes, 3 nickels, and 12 pennies:

B. 6 quarters, 5 dimes, 2 nickels, and 2 pennies:

C. 7 quarters, 2 dimes, 3 nickels, and 4 pennies:

10

A. Circle the prime number that is a factor of 28: 4 6 7 28

B. Circle the prime number that is a factor of 15: 2 5 10 15

C. Circle the prime number that is a factor of 8: 1 2 3 4

D. Circle the prime number that is a factor of 17: 3 6 5 17

11

A. The quotient of 139 ÷ 2 is about:

- **a.** 7
- **b.** 70
- **c.** 700

B. The quotient of 239 ÷ 3 is about:

- **a.** 8
- **b.** 80
- **c.** 800

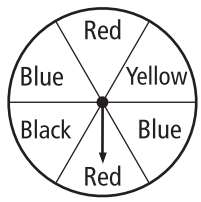
12

A. What fraction of the circle is red?

B. What is the probability of the spinner landing on red?

C. What fraction of the circle is black?

D. What is the probability of the spinner landing on black?



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CYCLE 49

Name _____ Date _____

1

If $(75 + N) = 300$,

What is the value of:

$(75 + N) \times 2 =$ _____

$$\begin{array}{r} 28 \\ \times\ 9 \\ \hline \end{array} \qquad 9\overline{)36}$$

2

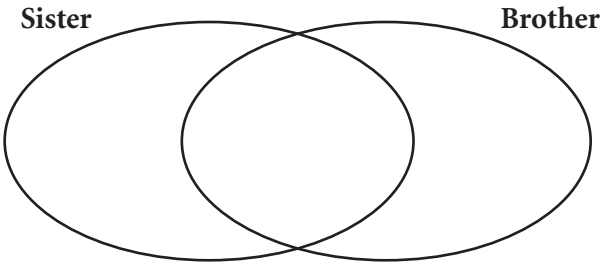
The Earth travels about 20 miles per second in its orbit around the sun.

About how far does the Earth travel in one minute?

About how far does the Earth travel in one hour?

3

Mike has a brother, Julie has a brother and a sister, Yong has a sister, Kim has two brothers, Jim has two sisters, Pepe has a brother and two sisters, Sammi has a sister, and Matt has a brother and two sisters. Using the data, place the students in the correct places in the Venn diagram:



4

Tom has saved $15. He wants to save $5 every week without touching his other savings. How much can Tom save for a number of weeks? Use W to stand for the number of weeks.

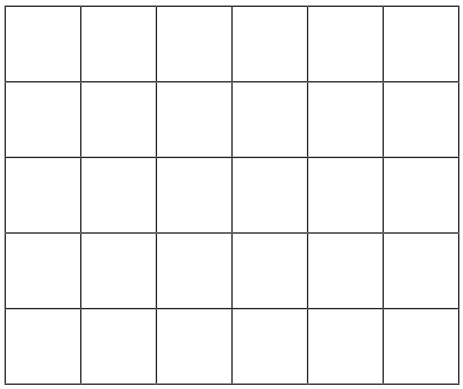
Total money saved: _____

Tom has saved $20. He wants to save $5 every week without touching his other savings. How much can Tom save for a number of weeks? Use W to stand for the number of weeks.

Total money saved: _____

5

Shade 2 rectangles: (A) area of 6 cm^2 and (B) area of 8 cm^2.



6

Write the numbers:

Sixty million

Five million, two hundred thousand

Two million, four hundred thousand

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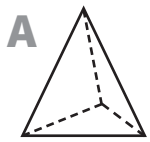
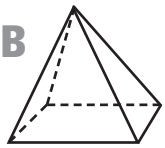
CYCLE 49

Name _____ Date _____

7





Write the properties of each shape:

Number of faces		
Name of the faces/ shapes		
Number of edges		
Number of vertexes		
Name of the figure		

8

Add or subtract the fractions:

$1\frac{2}{4} + 2\frac{1}{4} =$

B. $\frac{3}{4} - \frac{2}{4} =$

C. $\frac{3}{8} + \frac{3}{8} =$

E. $\frac{3}{6} - \frac{2}{6} =$

9

Write the total value of each group of coins:

8 quarters, 2 dimes, 3 nickels, and 12 pennies:

B. 5 quarters, 6 dimes, 2 nickels, and 2 pennies:

C. 5 quarters, 5 dimes, 5 nickels, and 4 pennies:

10

Circle the prime number that is a factor of 40: 4 5 6 7

B. Circle the prime number that is a factor of 20: 2 4 6 10

C. Circle the prime number that is a factor of 50: 2 3 10 20

D. Circle the prime number that is a factor of 18: 2 3 5 20

11

The quotient of 19 ÷ 6 is about:

2

b. 3

4

The quotient of 182 ÷ 6 is about:

3

b. 30

c. 300

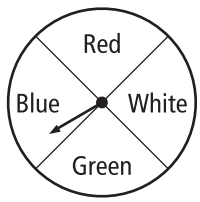
12

What fraction of the circle is red and white?

B. What is the probability of the spinner landing on red or white?

C. What fraction of the circle is white and blue?

What is the probability of the spinner landing on white or blue?



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CYCLE 50

Name _____ Date _____

1

A. If $(75 - N) = 30$,

what is the value of:

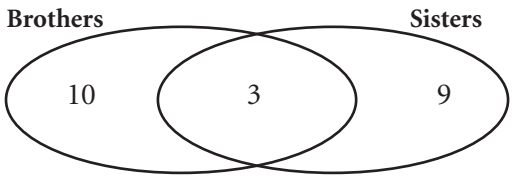
$(75 - N) \times 5 =$ _____

B. $\begin{array}{r} 38 \\ \times\ 9 \\ \hline \end{array}$ $\qquad 9\overline{)81}$

2

Typically, you get approximately 34 cups of popcorn from 1 cup of kernels. If you wanted about 100 cups of popcorn, how many cups of kernels should you pop?

3



The Venn diagram shows the result of a class survey: students with brothers, students with sisters, and students with brothers and sisters.

A. How many students have brothers as well as sisters?

B. How many students have only brothers?

C. How many students have only sisters?

4

A. Admission to the fun park is $7.00 and each ride is $3.00. If you want N number of rides, what is the total amount of money you need for admission and the number of rides?

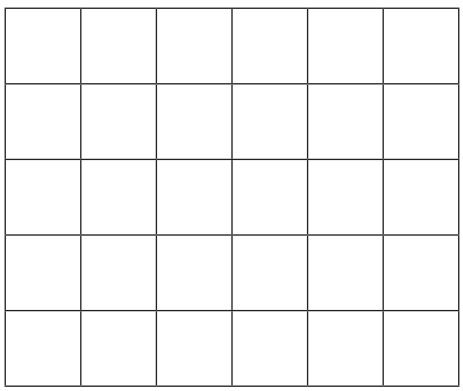
Total amount of money = _____

B. Admission is $10.00 and each ride is $5.00. If you want N number of rides, what is the total amount of money you need for admission and the number of rides?

Total amount of money = _____

5

Shade 2 rectangles: (A) area of 4 cm^2 and (B) area of 10 cm^2.



6

Write the numbers:

A. Nine million

B. Ninety million, two hundred thousand

C. Nine million, four hundred sixty thousand

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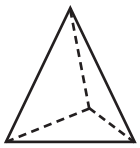
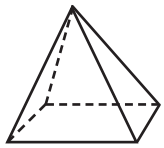
CYCLE 50

Name _____ Date _____

7





Write two properties that are common to the two figures:

Write two properties that are different between the two figures:

8

Sue subtracted two fractions and got $\frac{2}{4} - \frac{1}{4} = \frac{1}{0}$.
Is this answer correct? _____
If not, change the answer and explain your answer using any model or illustration.

9

Write the total value of each group of coins:

A. 5 quarters, 5 dimes, 3 nickels, and 12 pennies:

B. 3 quarters, 6 dimes, 2 nickels, and 2 pennies:

C. 5 quarters, 2 dimes, 5 nickels, and 4 pennies:

10

A. Circle the prime number that is a factor of 16: 2 3 6 7

B. Circle the prime number that is a factor of 24: 2 5 10 15

C. Circle the prime number that is a factor of 80: 2 3 4 7

D. Circle the prime number that is a factor of 21: 2 6 5 7

11

A. The quotient of 153 ÷ 5 is about:

- **a.** 3
- **b.** 30
- **c.** 300

B. The quotient of 149 ÷ 5 is about:

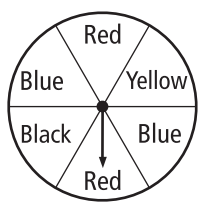
- **a.** 3
- **b.** 30
- **c.** 300

12

A. What fraction of the circle is red and yellow?

B. What is the probability of the spinner landing on red or yellow?

C. What is the probability of the spinner landing on black or red?



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CYCLE 51

Name _____ Date _____

1

A. If $(75 \times N) = 375$,

what is the value of:

$(75 \times N) + 10 =$ _____

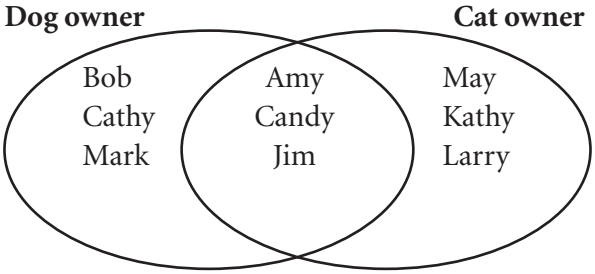
B. $\begin{array}{r} 70 \\ \times\ 70 \\ \hline \end{array}$ $\qquad 70\overline{)560}$

2

A. Ella wants to divide \$11 with her sister equally. She calculated $11 \div 2 = 5$ with a remainder of 1. How should she handle the remainder?

B. Ella wants to divide \$25 with her sister equally. How much money does each person get and how should she handle any remainder?

3



Sam has a dog and a cat. Place Sam's name in the diagram.

Jo has a cat. Place Jo's name in the diagram.

Wanda has a dog. Place Wanda's name in the diagram.

4

Column A	Column B
6	12
7	14
20	
25	

A. Fill in the blanks in column B.

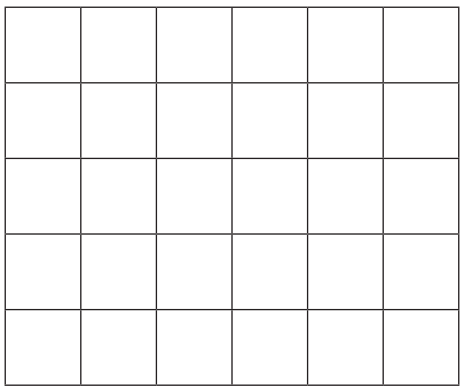
B. Write the rule as a number sentence:

The numbers in B = A _____

5

The shaded area is $\frac{1}{2}$ cm^2.

Shade a triangle that is 2 cm^2:



6

Write 3 numbers that are greater then 215, using the digits 1, 2, and 5 once in each number:

215 < _____

215 < _____

215 < _____

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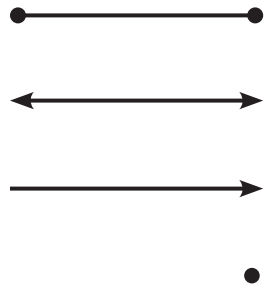
CYCLE 51

Name _____ Date _____

7

The arrow at the end of a line means it continues. Select and write appropriate terms for each illustration: point, ray, line segment, and line.



A. _____

B. _____

C. _____

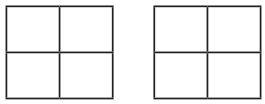
D. _____

8

Shade the boxes on the right to illustrate the number sentences.

A. ☐ 1 or $\frac{4}{4} > \frac{2}{4}$

B. ☐ $1 = \frac{4}{4}$

C. ☐ $1 < \frac{5}{4}$ 

9

James buys his lunch at school. Each day he wants to have juice that costs $0.95, a sandwich that costs $1.20, and fruit that costs $0.85.

A. How much money does James need to buy lunch for 5 days?

B. How much money does James need to buy lunch for 2 weeks (10 days)?

10

Example: 5×58 is the same as
$= (5 \times 60) - (5 \times 2)$ and
$= 300 - 10$
$= 290$

A. Do the same for 5×78.
= ( ) – ( )
= –
=

B. Do the same for 7×39.
= ( ) – ( )
= –
=

11

Round each of the numbers to the nearest ten.

56	
53	
567	
343	

12

If you arrange two coins by heads and tails, there are 4 possible combinations:
HH (2 heads), HT (1 heads, 1 tails),
TH (1 tails, 1 heads), and TT (2 tails).

A. If you toss 2 coins at the same time, what is your chance of getting 2 heads?

B. If you toss 2 coins, what is your chance of getting 1 heads and 1 tails?

C. If you toss 2 coins, what is your chance of getting 2 tails?

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CYCLE 52

Name _____ Date _____

1

A. If $(38 \times N) = 342$,

what is the value of:

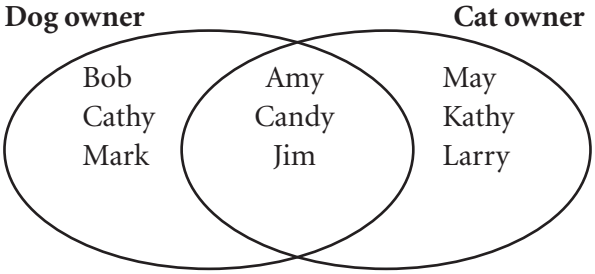
$(38 \times N) - 10 =$ _____

B. $\begin{array}{r} 18 \\ \times\ 80 \\ \hline \end{array}$ $\qquad 40\overline{)120}$

2

Ms. Smith formed teams of 4 students each from the 22 students in her class. She divided 22 by 4 and got 5 teams with 4 students in each team. She is wondering where to place the remaining 2 students. Give her some ideas:

3



A. Sue has 1 dog and 3 cats. Place Sue's name in the diagram.

B. Charles has fish. Where would you put his name?

4

Column A	Column B
3	9
4	12
10	
12	

A. Fill in the blanks in column B.

B. Write the rule as a number sentence:
The numbers in B = A _____

5

The shaded area is $\frac{1}{2}$ cm^2.

Write the area of the shaded figures:

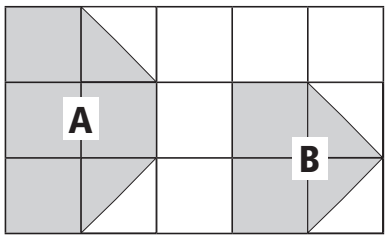


Figure A = _____ cm^2

Figure B = _____ cm^2

6

Write 4 numbers that are greater then 258, using the digits 2, 5, and 8 once in each number:

258 < _____

258 < _____

258 < _____

258 < _____

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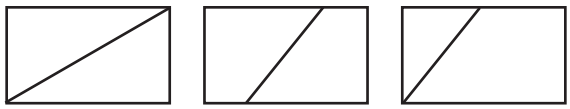
CYCLE 52

Name _____ Date _____

7

By drawing a line on a rectangle, we can make two triangles, two trapezoids, or a triangle and a trapezoid:



By drawing 2 lines on a rectangle, make a rectangle and 2 triangles:

8

A. Show a fraction that is less than 1. Draw an illustration of the fraction.

B. Show a fraction that is equal to 1. Draw an illustration of the fraction.

C. Show a fraction that is greater than 1. Draw an illustration of the fraction.

9

James buys his lunch at school. Each day he wants to have juice that costs $1.05, a sandwich that costs $1.20, and fruit that costs $.95.

A. How much money does James need to buy lunch for 3 days?

B. How much money does James need to buy lunch for 5 days?

10

Example: 5×58 is the same as
$= (5 \times 60) - (5 \times 2)$ and
$= 300 - 10$
$= 290$

A. Do the same for 8×48.
$= (\quad) - (\quad)$
$= \quad -$
$=$

B. Do the same for 9×39.
$= (\quad) - (\quad)$
$= \quad -$
$=$

11

Round each of the numbers to the nearest hundred.

256	
243	
567	
343	

12

A. A gumball machine has the following gumballs: 10 red, 4 white, 6 orange. If you put in a quarter and turn the handle for 1 gumball, what is the probability that you will get a red gumball?

a. $\frac{10}{20}$ **b.** $\frac{4}{20}$ **c.** $\frac{6}{20}$

B. If you put in a quarter and turn the handle for 1 gumball, what is the probability of getting a white gumball?

a. $\frac{10}{20}$ **b.** $\frac{4}{20}$ **c.** $\frac{6}{20}$

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CYCLE 53

Name _____ Date _____

1

Look at this example of the distributive property of multiplication:

25×12
$= 25 \times (10 + 2)$
$= (25 \times 10) + (25 \times 2)$
$= 250 + 50$
$= 300$

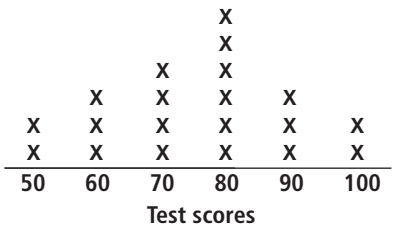
Compute using the distributive property: 25×14

2

Hot dogs often come in packages of 10. Buns come in packages of 12. Drinks come in packages of 12. If we want to buy enough packages for 20 people to have 1 hot dog, 1 bun, and 1 drink each, how many packages of each do we need to buy?

3

The line plot shows test scores for Ashley's class:



A. How many students took the test?

B. What is the mode score for the class?

C. What is the median score?

4

A. A plant grows 5 inches per day. If it is already 16 inches tall, how tall will it be in 4 days?

B. A plant grows 2.5 inches per day. If it is already 5 inches tall, how tall will it be in 2 days?

C. A plant grows 1.5 inches per day. If it is already 10 inches tall, how tall will it be in 3 days?

5

A. The perimeter of a square is 36 inches. What is the length of one side of the square?

B. The perimeter of a square is 20 inches. What is the length of one side of the square?

C. The perimeter of a square is 40 inches. What is the length of one side of the square?

6

A. Write the numeral that has 7 hundreds, 3 tens and 6 ones.

B. Write the numeral that has 27 hundreds, 3 tens and 6 ones.

C. Write the numeral that has 47 hundreds, 3 tens and 6 ones.

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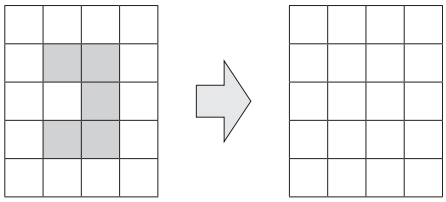
CYCLE 53

Name _____ Date _____

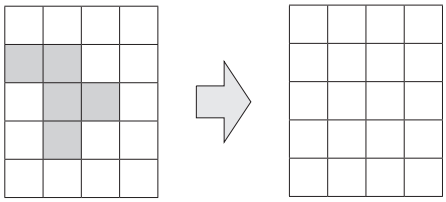
7

Draw the figure after a 1-unit slide to the right.

A.



B.



8

A. If $1\frac{1}{3}$ cups of flour are needed for a batch of cookies, how many cups of flour are needed for 3 batches?

B. If $1\frac{1}{3}$ cups of flour are needed for a batch of cookies, how many cups of flour are needed for 2 batches?

9

Draw combinations of quarters, dimes, nickels, and pennies to show:

A. 5 coins, 40¢:

B. 6 coins, 75¢:

C. 6 coins, 80¢:

10

Example: 2×24 is the same as
$= (2 \times 20) + (2 \times 4)$ and
$= 40 + 8$
$= 48$

A. Do the same for 5×22.

= ( ) – ( )
= +
=

B. Do the same for 5×45.

= ( ) – ( )
= +
=

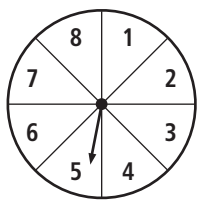
11

Round each of the numbers to the nearest ten.

546	
533	
67	
43	

12

You and your brother are playing a game with a spinner. Your brother wins if the arrow lands on any number smaller then 6 on the spinner. You win if the arrow lands on any number larger than 6.
Is the game fair?



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CYCLE 54

Name _____ Date _____

1

A. Use the distributive property of multiplication to solve this number sentence:

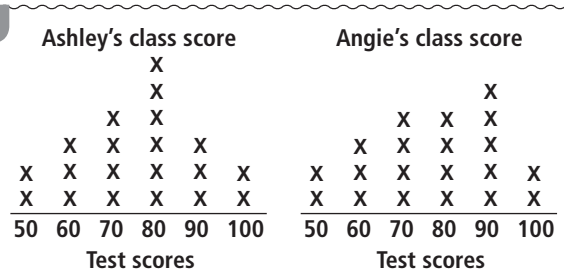
$28 \times (10 + 2)$

B. $90\overline{)810}$

2

Hot dogs often come in packages of 10. Buns come in packages of 12. Drinks come in packages of 12. If we want to buy enough packages for 36 people to have 1 hot dog, 1 bun, and 1 drink each, how many packages of each do we need to buy?

3



The 2 line plots are test scores for Ashley's class and Angie's class. Fill in the chart:

	Ashley's class	Angie's class
Mode		
Median		
Range		

4

A. A plant grows 9 inches per day. If it is already 16 inches tall, how tall will it be in 3 days?

B. A plant grows 3.5 inches per day. If it is already 10 inches tall, how tall will it be in 2 days?

C. A plant grows 1.5 inches per day. If it is already 10 inches tall, how tall will it be in 5 days?

5

Sue's father is making a sandbox for Sue. He bought 20 feet of panels for the sandbox rims, a 25-square-foot cover, and 400 pounds of sand.

A. Which number represents area?

B. Which number represents perimeter?

C. Which number represents volume?

6

A. Write the numeral that has 8 hundreds, 2 tens and 5 ones.

B. Write the numeral that has 18 hundreds, 2 tens and 5 ones.

C. Write the numeral that has 43 hundreds, 3 tens and 6 ones.

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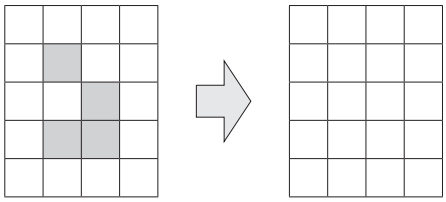
CYCLE 54

Name _____ Date _____

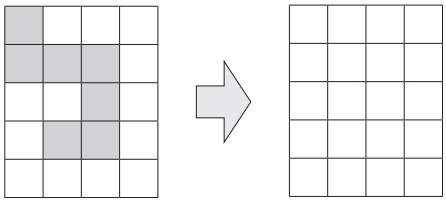
7

Draw the figure after a 1-unit slide to the right.

A.



B.



8

A. If $1\frac{1}{2}$ cups of flour are needed for a batch of cookies, how many cups of flour are needed for 2 batches?

B. If $1\frac{1}{2}$ cups of flour are needed for a batch of cookies, how many cups of flour are needed for 4 batches?

9

Draw combinations of quarters, dimes, nickels, and pennies to show:

A. 6 coins, 40¢:

B. 3 coins, 60¢:

C. 5 coins, 70¢:

10

Example: 5×58 is the same as
$= (5 \times 60) - (5 \times 2)$ and
$= 300 - 10$
$= 290$

A. Do the same for 4×48.

$= (\quad) - (\quad)$
$= \quad +$
$=$

B. Do the same for 6×39.

$= (\quad) - (\quad)$
$= \quad +$
$=$

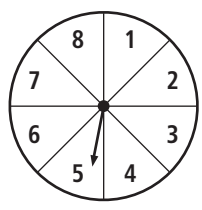
11

Round each of the numbers to the nearest hundred.

566	
563	
567	
3,443	

12

You and your brother are playing a game with a spinner. Your brother wins if the arrow lands on any number smaller than 5 on the spinner. You win if the arrow lands on any number larger than 5.
Is the game fair?



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CYCLE 55

Name _____ Date _____

1

A. Solve the multiplication by using distributive property:

$25 \times (10 + 5)$

B. $60\overline{)420}$

2

A. A candy store wants to divide 40 pounds of candy into 2-pound bags, 4-pound bags, or a combination of the two kinds of bags. Find at least 3 ways to divide 40 pounds of candy into the bags:

1.

2.

3.

B. The 2-pound bags of candy sell for $4 and 4-pound bags sell for $5. Which of the 3 ways is most profitable?

3

Mark's classmates' weights are:

Amy 30 kg, Bob 50 kg, Candy 30 kg, Cathy 30 kg, Mark 40 kg, Jim 40 kg, Kay 40 kg, Larry 30 kg, Mark 40 kg, Nick 50 kg, Peggy 30 kg, Penny 40 kg, Scott 40 kg, and Tom 40 kg

Make a line plot using Xs for the data:

30 kg 40 kg 50 kg

4

You make $3.00 an hour for dog-sitting. How much money would you make for 2, 3, 4, or 5 hours of dog-sitting? Fill in the chart.

Number of hours	1	2	3	4	5
Money earned	$3.00				

If T stands for the total amount of money you are making and N stands for the number of hours you dog-sit, then

T = ( ) × $3.00.

5

A. A rectangular carpet is 9 feet long and 6 feet wide.

What is the perimeter of the carpet?

What is the area of the carpet in square feet?

B. A rectangular carpet is 10 feet long and 5 feet wide.

What is the perimeter of the carpet?

What is the area of the carpet in square feet?

6

Example: Expanded form for 543 is: 500 + 40 + 3.

A. Write 54,650 in expanded form:

B. Write 64,300 in expanded form:

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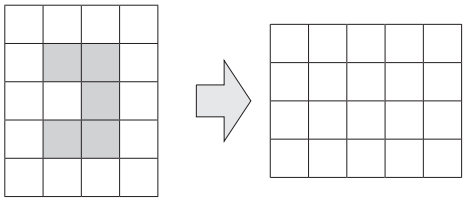
CYCLE 55

Name _____ Date _____

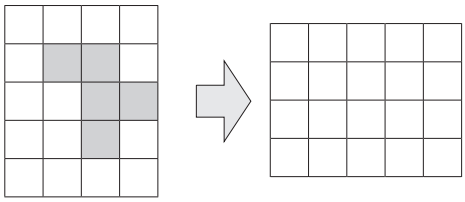
7

Draw the figure after it has been turned clockwise $\frac{1}{4}$ turn.

A.



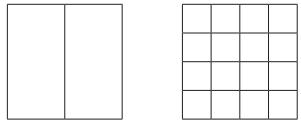
B.



8

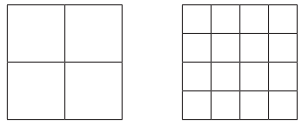
A. Write 1 equivalent fraction in the ( ). Then shade the 2 equivalent fractions in the boxes:

$\frac{1}{2}$ = ( )



B. Write 1 equivalent fraction in the ( ). Then shade the 2 equivalent fractions in the boxes:

$\frac{1}{4}$ = ( )



9

Mario bought 2 items and paid with a $10 bill. He received 4 $1 bills and 2 quarters in change. What are the 2 items Mario could have bought? Circle the names in the box.

Crayon	$2.00
Notebook	$1.50
Marker	$0.50 each
Poster	$5.00 each
Card	$1.00 each

10

Example: 25 × 3 is the same as
= (20 × 3) + (5 × 3) and
= 60 + 15
= 75

A. Do the same for 23 × 5.

= ( ) + ( )
= +
=

B. Do the same for 16 × 2.

= ( ) + ( )
= +
=

11

Billy and his family went to a baseball game. Billy wanted to buy some souvenirs. Here is what they cost. Round the prices to the nearest $10:

Souvenir	Cost	Rounded to $10
Baseball cap	$10.50	
Foam "#1" hand	$9.30	
Baseball jersey	$21	
Poster	$5.60	

12

A. Your sock drawer contains 30 white socks and 10 black socks. Predict how likely you are to get a white sock when you pull one out without looking.

B. Predict how likely you are to get a black sock when you pull one out without looking.

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CYCLE 56

Name _____ Date _____

1

A. Compute using the distributive property of multiplication:

$25 \times (40 + 2)$

B. $60\overline{)240}$

2

To raise money for the school, a fourth-grade class sold apple pies for $2 each and blueberry pies for $5 each. The class raised $400.

To find out which pie sold more than the other, what information would be helpful?

a. The number of apple pies sold

b. Total number of pies sold

c. The price of a blueberry pie

3

Mark's classmates' heights:

Amy 1.3 m, Bob 1.5 m, Candy 1.4 m, Cathy 1.3 m, Mark 1.3 m, Jim 1.4 m, Kay 1.4 m, Larry 1.5 m, Mark 1.4 m, Nick 1.6 m, Peggy 1.4 m, Penny 1.5 m, Scott 1.4 m, and Tom 1.4 m

Make a line plot using Xs for the data:

1.3 m 1.4 m 1.5 m 1.6 m

4

You make $3.50 an hour for dog-sitting. How much money would you make for 2, 3, 4, or 5 hours of dog-sitting? Fill in the chart.

Number of hours	1	2	3	4	5
Money earned	$3.50				

If T stands for the total amount of money you are making and N stands for the number of hours you dog-sit, then

T = ( ) × $3.50.

5

If both the square and the triangle above have the same perimeter, what is the length of each side of the square?

6

Example: Expanded form for 543 is: 500 + 40 + 3.

A. Write 54,650,000 in expanded form:

B. Write 64,300,000 in expanded form:

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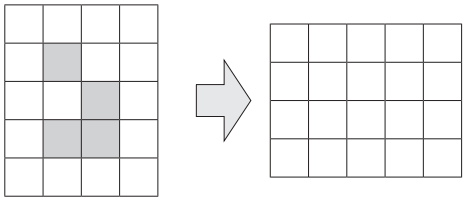
CYCLE 56

Name _____ Date _____

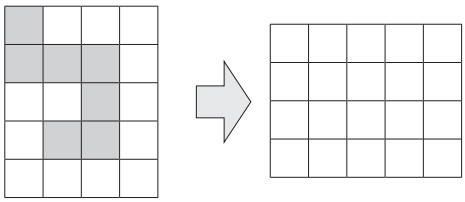
7

Draw the figure after it has been turned clockwise $\frac{1}{4}$ turn.

A.



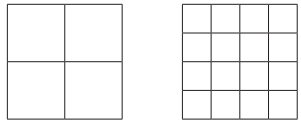
B.



8

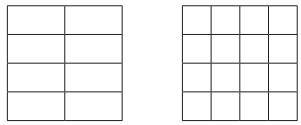
A. Write 1 equivalent fraction in the ( ). Then shade the 2 equivalent fractions in the boxes:

$\frac{3}{4} = (\quad)$



B. Write 1 equivalent fraction in the ( ). Then shade the 2 equivalent fractions in the boxes:

$\frac{1}{8} = (\quad)$



9

Mario bought 3 items and paid with a $10 bill. He received 6 $1 bills and 2 quarters in change. What are the 3 items Mario could have bought? Circle the names in the box.

Crayon	$2.00
Notebook	$1.50
Marker	$0.50 each
Poster	$5.00 each
Card	$1.00 each

10

Example: 28×3 is the same as
$= (30 \times 3) - (2 \times 3)$ and
$= 90 - 6$
$= 84$

A. Do the same for 29×5.

$= (\quad) - (\quad)$
$= \quad +$
$=$

B. Do the same for 19×8.

$= (\quad) - (\quad)$
$= \quad +$
$=$

11

Billy and his family went to a baseball game. Billy wanted to buy some souvenirs. Here is what they cost. Round the prices to the nearest $1:

Souvenir	Cost	Rounded to $1
Baseball cap	$10.50	
Foam "#1" hand	$9.30	
Baseball jersey	$21.80	
Poster	$5.60	

12

The gumball machine has 100 gumballs: 20 are red, 30 are yellow, and 50 are blue. Susan gets 10 gumballs from the machine.

What is your best prediction of the number of red gumballs that Susan gets?

Explain why you chose this number:

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CYCLE 57

Name _____ Date _____

1

A. Solve using the distributive property of multiplication:

$25 \times (10 + 8)$

B. $70\overline{)560}$

2

For the school play, 20 seats are empty in section A, and 15 seats are empty in section B in the auditorium. In order to find out how many people attended a play, what information do you need?

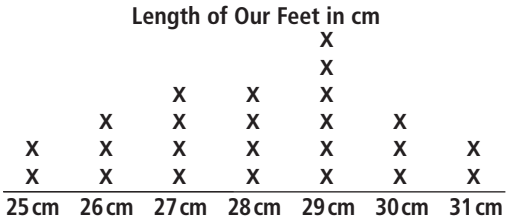
a. the number of seats in section A

b. the number of seats in section B

c. the number of seats in the auditorium

3

The line plot shows the size of Mark's classmates' feet in centimeters:



Fill in the boxes:

Range of Data	Mode Length	Median Length

4

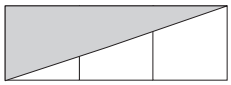
A. Wanda's mom walks 3 miles every day. Make a table to show the number of days and the total number of miles Wanda's mom walked.

B. T stands for the total number of miles Wanda's mom walked after N number of days. Write T in terms of N:

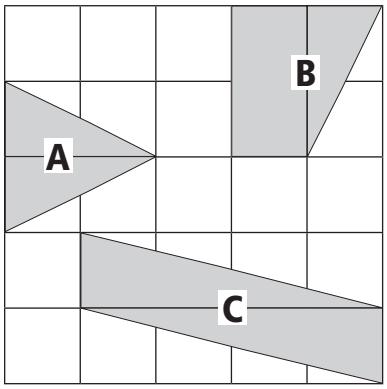
T = N _____

5

The shaded area is 1.5 cm^2 because it is half of 3 cm^2.



Find the area of the shapes:



A = _____ cm^2

B = _____ cm^2

C = _____ cm^2

6

A. Using 2, 5, 6, and 8 once in a four-digit number, create:

Greatest numeral: _____

Least numeral: _____

B. Using 4, 5, and 1 once in a four-digit number, create:

Greatest numeral: _____

Least numeral: _____

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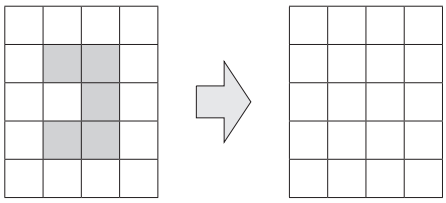
CYCLE 57

Name _____ Date _____

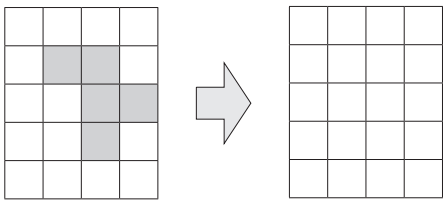
7

Draw the figures after they are flipped left to right:

A.



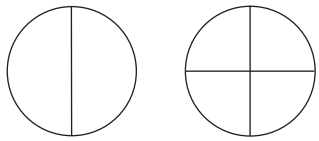
B.



8

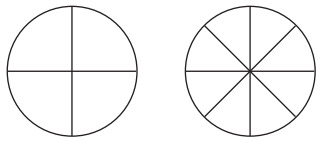
A. Write 1 equivalent fraction in the ( ). Then shade the 2 equivalent fractions in the boxes:

$\frac{1}{2}$ = ( )



B. Write 1 equivalent fraction in the ( ). Then shade the 2 equivalent fractions in the boxes:

$\frac{1}{4}$ = ( )



9

Write the total value of each group of coins:

A. 4 quarters, 6 dimes, 6 nickels, and 1 penny:

B. 8 quarters, 2 dimes, 2 nickels, and 2 pennies:

C. 6 quarters, 2 dimes, 1 nickel, and 4 pennies:

10

A number that cannot be divided by another number except for 1 or itself is a *prime number*.

0 and 1 are neither prime numbers nor composite numbers. The other whole numbers are *composite numbers*.

Underline prime numbers, circle composite numbers, and mark X for the numbers that are neither prime nor composite:

7 8 9 10 11 15 0 1 20 100

11

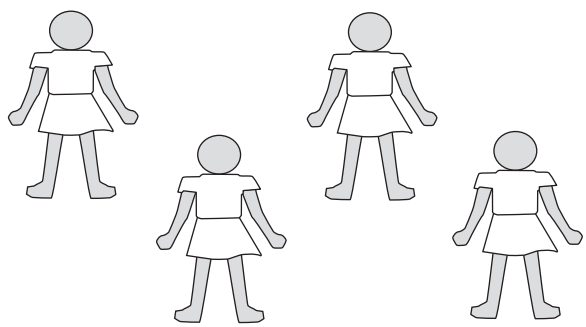
Billy and his family went to a baseball game. Billy wanted to buy some souvenirs. Here is what they cost. Round the prices to the nearest $10:

Souvenir	Cost	Rounded to $10
Baseball cap	$16.50	
Foam "#1" hand	$7.70	
Baseball jersey	$26.40	
Poster	$5.60	

12

Caitlin likes to dress in white and black colors. She has 1 white shirt and 1 white skirt and 1 black shirt and 1 black skirt. How many different outfits can she have? _____

Color the combinations of the shirts and skirts:



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CYCLE 58

Name _____ Date _____

1

A. Solve the multiplication by using the distributive property:

$25 \times (30 + 8)$

B. $80\overline{)720}$

2

A. A candy store wants to divide 40 pounds of candy into 4-pound bags, 5-pound bags, or a combination of the two kinds of bags. Find at least 3 ways to divide 40 pounds of candy into the bags:

1.

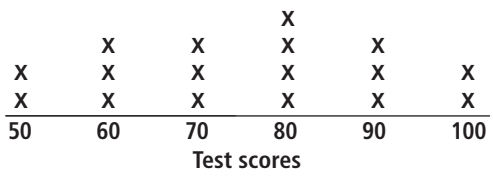
2.

3.

B. The 4-pound bags of candy sell for $4 and 5-pound bags sell for $5. Which of the 3 ways is most profitable?

3

The line plot shows class test scores for Ashley's class:



Fill in the boxes:

Range of Score	Mode Score	Median Score

4

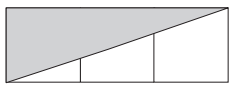
A. Susan spends 20 minutes on homework every day. Make a table to show the number of days and the total number of minutes Susan spends on homework.

B. T stands for the total number of minutes Susan did homework after N number of days. Write T in terms of N:

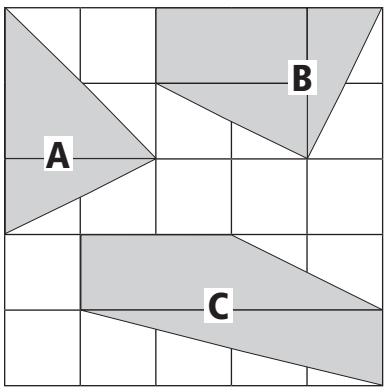
T = N _____

5

The shaded area is 1.5 cm^2 because it is half of 3 cm^2.



Find the area of the shapes:



A = _____ cm^2

B = _____ cm^2

C = _____ cm^2

6

A. Write a 4-digit number using 0, 5, 2, and 8 once:

Greatest numeral: _____

Least numeral: _____

B. Write a 4-digit number using 4, 5, 1, and 6 once:

Greatest numeral: _____

Least numeral: _____

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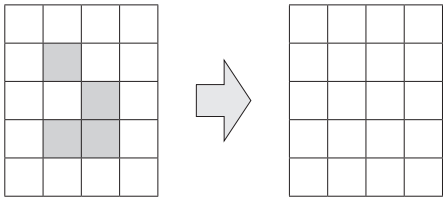
CYCLE 58

Name _____ Date _____

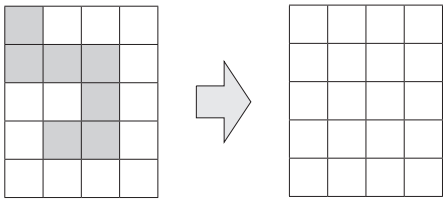
7

Draw the figures after they are flipped left to right:

A.



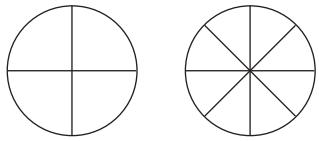
B.



8

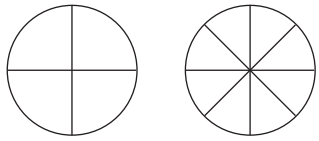
A. Write 1 equivalent fraction in the ( ). Then shade the 2 equivalent fractions in the boxes:

$\frac{3}{4} = (\quad)$



B. Write 1 equivalent fraction in the ( ). Then shade the 2 equivalent fractions in the boxes:

$\frac{2}{4} = (\quad)$



9

Write the total value of each group of coins:

A. 5 quarters, 2 dimes, 3 nickels, and 12 pennies:

B. 6 quarters, 6 dimes, 2 nickels, and 2 pennies:

C. 7 quarters, 2 dimes, 1 nickel, and 4 pennies:

10

A. What is a prime number? List 5 prime numbers:

B. What is a composite number? List 5 composite numbers:

11

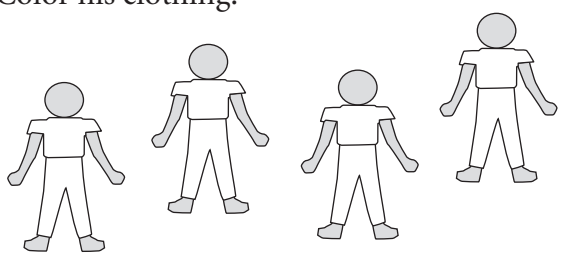
Tyler and his family went to a baseball game. Tyler wanted to buy some souvenirs. Here is what they cost. Round the prices to the nearest $10.00:

Souvenir	Cost	Rounded to $10
Baseball cap	$10.20	
Foam "#1" hand	$9.80	
Baseball jersey	$21.20	
Poster	$5.80	

12

Jim likes to wear only red and blue. He has 1 blue shirt and 1 red shirt and 1 pair of red pants and 1 pair of blue pants. He likes to wear the same color of shirts and pants together. How many different combinations of outfits can he have? _____

Color his clothing:



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CYCLE 59

Name _____ Date _____

1

A. $(35 \times 20) + (35 \times 2)$

Underline the equivalent number sentence:

a. $35 \times 20 \times 2$

b. 35×22

c. $22 \times 35 \times 2$

B. $(53 \times 10) + (53 \times 7)$

Underline the equivalent number sentence:

a. $53 \times 10 \times 7$

b. $53 \times (10 \times 7)$

c. $53 \times (10 + 7)$

C. $80\overline{)320}$

2

Sugar	2 cups	4 cups	6 cups
Lemonade	1 can	2 cans	3 cans
Water	1 quart	2 quarts	3 quarts
Number served	4 people	8 people	12 people

Look at the lemonade recipe. How much of each ingredient do you need to make enough for 20 people?

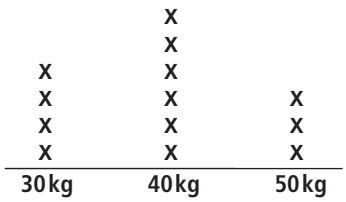
Sugar: _____ cups

Lemonade: _____ cans

Water: _____ quarts

3

The line plot shows the weights in kilograms of the students in a fourth-grade class.



Fill in the boxes:

Range of Weights in kg	**Mode Weight in kg**	**Median Weight in kg**

4

Hours of rain	0	1	2	3	4
Depth of the pond	2.00 m	2.12	2.24		

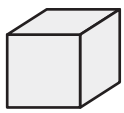
A. A pond's water level is rising, making the pond deeper, each hour during a rainstorm. If the rain continues, how deep will the pond be 3 and 4 hours later? Fill in the blanks above.

B. D stands for the depth of the pond and H stands for the number of hours of rain. Write D in terms of H:

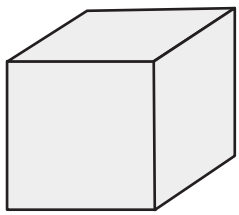
$D = 2m + (H \times$ _____ m)

5

This is a 1 cm^3 cube. Each edge is 1 cm.



How many 1 cm^3 cubes would fit in this box? All edges of this box are 2 cm.



6

Fill in the blanks as done in the first row:

Fraction	**Decimal**	**Reading**
$\frac{85}{100}$	0.85	85 hundredths
	0.5	
$\frac{7}{10}$		
		14 hundredths

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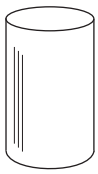
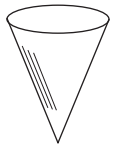
CYCLE 59

Name _____ Date _____

7





Write 2 properties that are common to the figures:

Write 1 property that differs between the figures:

8

Jim has $\frac{3}{4}$ of a pitcher of orange juice. Gene has $\frac{2}{4}$ of a pitcher. They decide to dump both pitchers into one.

A. Why is this a problem?

B. $\frac{3}{4} + \frac{2}{4} =$

9

Ashley buys her lunch at school. Each day she wants to have juice that costs $.95, a sandwich that costs $1.55, and fruit that costs $0.80.

A. How much money does Ashley need to buy lunch for 3 days?

B. How much money does Ashley need to buy lunch for 5 days?

10

A. Underline the prime numbers and circle the composite numbers:

20 21 22 23 24 25 26 27

B. Underline the prime numbers and circle the composite numbers:

30 31 32 34 35 36 37 38

11

Jane goes to a school book fair with $20 to spend. She wants to buy books that cost $5.10, $4.30, $3.60, and $5.10. Does she have enough money to buy the books? _____
Show your work using the estimation method:

12

There are 3 bags of marbles with 4 marbles in each bag.

A. If you pick a marble without looking, which bag gives you the probability of 1 of picking a black marble? _____

B. Which bag gives you the probability of 0 of picking a black marble? _____

C. Which bag gives you the probability of $\frac{1}{2}$ of picking a black marble? _____

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CYCLE 60

Name _____ Date _____

1

A. $(35 \times 50) + (35 \times 6)$

Underline the equivalent number sentence:

a. $35 \times 50 \times 6$

b. 35×56

c. $56 \times 30 \times 5$

B. $(73 \times 10) + (73 \times 7)$

Underline the equivalent number sentence:

a. $73 \times 10 \times 7$

b. $73 \times (10 \times 7)$

c. $73 \times (10 + 7)$

C. $90\overline{)8190}$

2

Sugar	2 cups	4 cups	6 cups
Lemonade	1 can	2 cans	3 cans
Water	1 quart	2 quarts	3 quarts
Number served	4 people	8 people	12 people

Look at the lemonade recipe. How much of each ingredient do you need to make enough for 24 people?

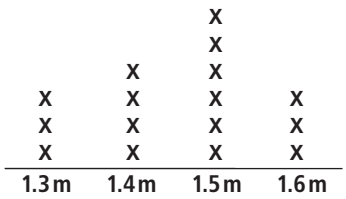
Sugar: _____ cups

Lemonade: _____ cans

Water: _____ quarts

3

The line plot shows the height in meters of the students in a fourth-grade class.



Fill in the boxes:

Range of Heights in m	**Mode Height in m**	**Median Height in m**

4

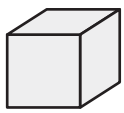
Hours of rain	0	1	2	3	4
Depth of the pond	4.00 m	4.25	4.50		

A. A pond's water level is rising, making the pond deeper, each hour during a rainstorm. If the rain continues, how deep will the pond be 3 and 4 hours later? Fill in the blanks above.

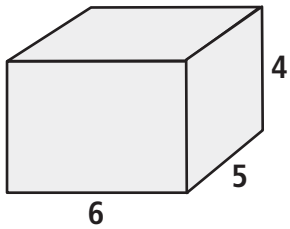
B. D stands for the depth of the pond and H stands for the number of hours of rain. Write D in terms of H:
D = 4m + H _____ m

5

This is a 1 cm^3 cube. Each edge is 1 cm.



How many 1 cm^3 cubes would fit in this box? Width: 6 cm; length: 5 cm; and height: 4 cm.



6

Fill in the blanks as done in the first row:

Fraction	**Decimal**	**Reading**
$\frac{85}{100}$	0.85	85 hundredths
	0.05	
$\frac{15}{100}$		
		4 tenths

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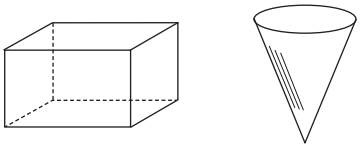
CYCLE 60

Name _____ Date _____

7



Write 1 property that is common to the figures:

Write 2 properties that differ between the figures:

8

Jim has $\frac{5}{8}$ of a pitcher of orange juice. Gene has $\frac{7}{8}$ of a pitcher. They decide to dump both pitchers into one.

A. Why is this a problem?

B. $\frac{5}{8} + \frac{7}{8} =$

9

Ashley buys her lunch at school. Each day she wants to have juice that costs $0.95, a sandwich that costs $1.25, and fruit that costs $0.80.

A. About how much money does Ashley need to buy lunch for 5 days?

B. About how much money does Ashley need to buy lunch for two weeks (each week has 5 school days)?

10

A. A prime number between 20 and 25 is: ___

B. A prime number between 26 and 30 is: ___

C. A prime number between 12 and 15 is: ___

D. A prime number between 30 and 35 is: ___

E. A prime number between 35 and 40 is: ___

F. A prime number between 6 and 10 is: ___

11

Groups of at least 100 students get into the museum for half price. Could the third graders pay half price by going together to the museum? Show your work by using the estimation method.

Number of students:	
Mrs. Smith:	30
Mrs. Williams	32
Mrs. Black	28
Mrs. Wagner	27

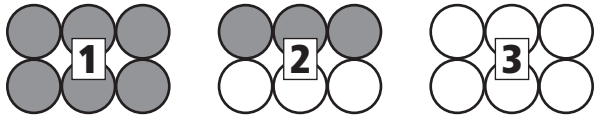
12

There are 3 bags of marbles with 6 marbles in each bag.

A. If you pick a marble without looking, which bag gives you the probability of 1 of picking a black marble? _____

B. Which bag gives you the probability of 0 of picking a black marble? _____

C. Which bag gives you the probability of $\frac{1}{2}$ of picking a black marble? _____



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QUIZ 16

Name _____ Date _____

1

$$\begin{array}{r} 48 \\ +\,38 \\ \hline \end{array} \qquad \begin{array}{r} 82 \\ -\,27 \\ \hline \end{array} \qquad \begin{array}{r} 2 \\ \times\,4 \\ \hline \end{array} \qquad 2\overline{)4}$$

2 Justine needs to buy 7 cartons of eggs. Each carton has 2 rows of eggs, and each row has 6 eggs. Which equation can you use to find the total number of eggs?

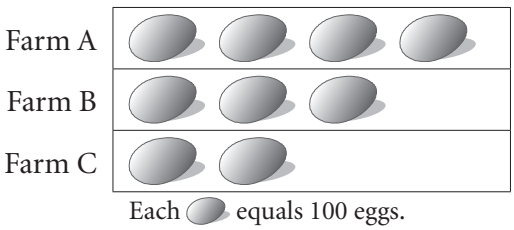
a. $(2 \times 6) + 7 = n$

b. $(2 \times 6) \times 7 = n$

c. $2 \times (6 + 7) = n$

3

Cartons of Eggs Sold Last Month



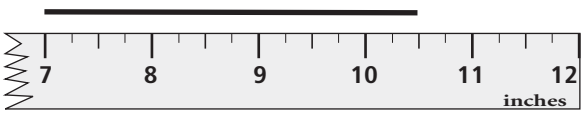
How many cartons of eggs were sold all together by farms A and C last month? ____

4 Fill in the missing letters in the pattern:

X X Y X ___ Y X ___ Y

O X O O X ___ O ___

5

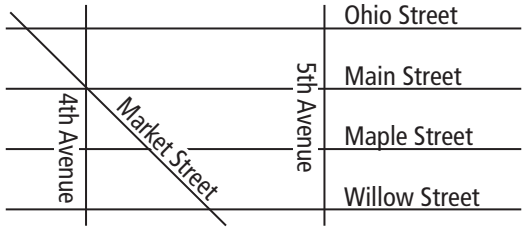


What is the length of the line in the figure above? _____

6 Circle the numeral that has a 4 in the thousands place:

3,245 4,325 5,432 6,542

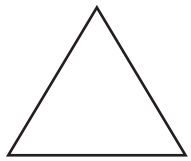
7



List 1 pair of parallel streets:

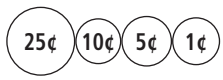
_____ & _____

8



Divide the triangle into thirds and shade $\frac{2}{3}$.

9 By drawing combinations of quarters, dimes, nickels, and pennies, show:



50¢:

10 Circle the factors and draw squares around the multiples or products:

$10 \times 3 = 30$

11 Which is a reasonable estimation for the difference of 310 and 188?

a. 100

b. 200

c. 300

12 You can make a sandwich with one kind of bread, one meat, and one vegetable.

Breads	Meats	Vegetables
white	chicken	lettuce
rye	beef	tomato

How many different sandwiches can you make? _____

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QUIZ 17

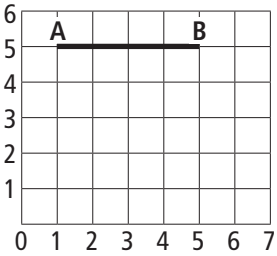
Name _____ Date _____

1

$$\begin{array}{r} 77 \\ +\ 36 \\ \hline \end{array} \qquad \begin{array}{r} 62 \\ -\ 17 \\ \hline \end{array} \qquad \begin{array}{r} 2 \\ \times\ 9 \\ \hline \end{array} \qquad 2\overline{)14}$$

2 Sam is shorter than Ronnie. Sam is taller than Michael. Denise's height is between Sam's height and Ronnie's height. Who is the shortest person? _____

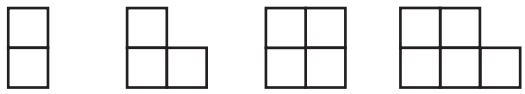
3



A. Draw a line segment CD so that CD and AB are perpendicular.

B. The coordinates C = (,); D = (,).

4



Look at the pattern of the squares by the increasing number of figures. What is the rule?

5

4 quarts make 1 gallon
4 cups make 1 quart

How many cups of orange juice are there in a pitcher that holds 3 quarts? _____

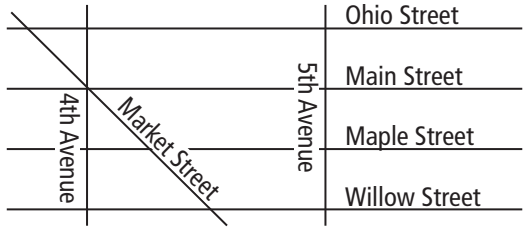
6 In 8,246

The _____ is in the tens place, and

The _____ is in the hundreds place, and

The _____ is in the thousands place.

7

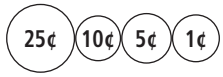


List 1 pair of intersecting streets:

_____ & _____

8 Write the fraction of the shaded portion of the strip:

9 By drawing combinations of quarters, dimes, nickels, and pennies, show:



75¢:

10 Two whole numbers, each greater than 2, are multiplied together. The product is 20. What could the two factors be? _____

11 Which is a reasonable estimate for the difference of 810 and 198?

a. 500

b. 600

c. 700

12 A new car comes with options of 4 different outside colors—red, silver, black, and green—and 2 different inside colors, gray and burgundy. List all of the combinations of inside and outside colors of the new car:

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QUIZ 18

Name _____ Date _____

1 $\begin{array}{r} 78 \\ +\,96 \end{array}$ $\begin{array}{r} 332 \\ -\,77 \end{array}$ $\begin{array}{r} 3 \\ \times\,8 \end{array}$ $3\overline{)21}$

2 Tom's family is taking a trip on which the family plans to drive 300 miles each day. Their trip is 1,793 miles long. About how many days will it take for the trip?

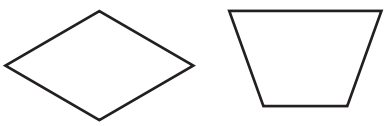
3 Wanda does homework 7 days of the week and her median minutes of homework is 30 minutes. On how many days does she do the homework for more than 30 minutes?

4 Fill in the blanks:

Puppy's Age	Puppy's Weight
1 month	15 lbs
2 months	19 lbs
3 months	23 lbs
4 months	lbs
5 months	lbs

5 At a picnic, cider is served in cups. If 1 gallon will fill 16 cups, how many cups can be filled from 9 gallons of cider?

6 Write the number that is seven hundred ninety five and sixty three hundredths:

7 

Write 1 common property and 1 different property of the 2 figures:

Common:

Different:

8 Jim has $\frac{3}{4}$ of a yard of string, which he wishes to divide into pieces; each is $\frac{1}{4}$ of a yard long. How many pieces will he have?

9 Amy bought a book that cost $2.75 and gave the clerk a $10 bill. What is the correct change?

10 Two whole numbers, each greater than 2, are multiplied together. The product is 24. What could the two factors be?

11

Day	Rainfall in cm
Sunday	0 cm
Monday	0.6 cm
Tuesday	0 cm
Wednesday	0.1 cm
Thursday	0.9 cm
Friday	0.1 cm
Saturday	1.2 cm

The table shows how much rain fell on each day of a week. About how much rain fell during the week?

12 Gymnast Carlos has 1 pair each of black, red, and white pants. He has 1 black shirt and 1 blue shirt. How many different combinations of outfits does he have? _____
List the combinations:

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QUIZ 19

Name _____ Date _____

1. $\begin{array}{r} 756 \\ +\ 268 \\ \hline \end{array}$ $\begin{array}{r} 345 \\ -\ 168 \\ \hline \end{array}$ $\begin{array}{r} 4 \\ \times\ 7 \\ \hline \end{array}$ $4\overline{)8}$

2. Forty-two children signed up for basketball. You want to make groups of 6. How many groups can you make?

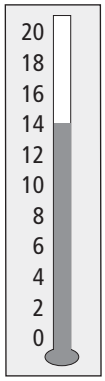
3. Jan does homework 7 days a week and his mode of homework time is 40 minutes. Make up Jan's homework time for 7 days with a mode of 40 minutes:

   ____, ____, ____, ____, ____, ____, ____

4. In the number sentence below, M = 6. Solve the number sentence:

   M × 5 =_____

5. The Celsius temperature rose from 2 degrees above 0 to the temperature shown on the thermometer. How many degrees did the temperature rise?



6. Tim was watching TV and heard, "Twelve million five hundred sixty thousand books have been donated to the library." Write the number:

7. Draw an acute angle from the line below:

   _____

8. On the portion of the number line below, a dot shows $\frac{1}{2}$. Use another dot "A" to show $\frac{1}{8}$.

9. Ella wants to buy 2 notebooks that cost $2.90 each, including tax. If she has $1 bills and no coins, how many $1 bills does she need?

10. Seven students bought exactly enough pens to share equally among themselves. Which of the following could be the number of pens they bought?

    35 39 41 43

11. Mrs. James bought 5 pints of berries. Each pint cost 97¢. About how many $1 bills does she need to pay?

12. Wanda has 1 yellow skirt and 1 pink skirt. She has 1 red shirt, 1 white shirt, and 1 pink shirt. How many different combinations of outfits can Wanda have? _____ List them:

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QUIZ 20

Name _____ Date _____

1. $\begin{array}{r} 746 \\ +\ 176 \\ \hline \end{array}$ $\begin{array}{r} 430 \\ -\ 156 \\ \hline \end{array}$ $\begin{array}{r} 8 \\ \times\ 4 \\ \hline \end{array}$ $4\overline{)40}$

2. Ms. John formed teams of 6 students each from the 22 students in her class. She formed as many teams as possible, and the students who were left were substitutes. How many students were substitutes?

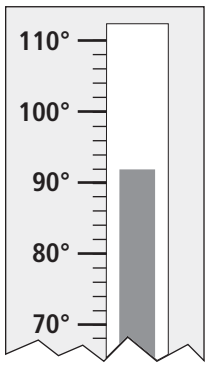
3. John ate 4 pancakes, Stacy ate 2 pancakes, and Wendy ate 3 pancakes. What is the average number of pancakes that the children ate?

4. The table below shows how the chirping of a cricket is related to the temperature outside.

Number of Chirps per Minute	Temperature
144	76°
152	78°
160	80°
168	82°
176	84°

If the pattern stays the same, what would be the number of chirps per minute when the temperature outside is 72°?

5. What is the temperature shown on the thermometer?



6. By how much would 217 be increased if the digit 2 was replaced by a 5?

7. Using a ruler, draw (A) an acute triangle, and (B) an obtuse triangle:

8. Students were asked to tell why $\frac{2}{6}$ is equivalent to $\frac{1}{3}$. Explain the reason using a picture, word, or numbers:

9. Jim and Jim's mom bought 2 ice-cream cones for a total of $5.80. He gave the salesperson a $10 bill. The salesperson gave him $3.20 in change. Is the change correct? _____ Explain:

10. 3 is a prime number because 3 has only 1 and itself as factors. List another prime number and explain why that number is prime:

11. A restaurant bought 70 dozen eggs at $0.99 per dozen. About how much was the total cost of the eggs?

12. If you reach into a bag with 10 black and 2 white marbles and pick one marble without looking, the chance of getting a black or a white marble is: (impossible, certain, more likely, less likely).

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QUIZ 21

Name _____ Date _____

1

$$\begin{array}{r} 385 \\ +\ 378 \\ \hline \end{array} \qquad \begin{array}{r} 456 \\ -\ 265 \\ \hline \end{array} \qquad \begin{array}{r} 5 \\ \times\ 8 \\ \hline \end{array} \qquad 5\overline{)40}$$

2 Tim's classroom has 10 large boxes of crayons and 20 small boxes of crayons. There are 12 crayons in each of the large boxes and 6 crayons are in each of the small boxes. How many crayons does Tim's class have?

3 Sam walked 4 days: First day—3 miles; second day—5 miles; third day—4 miles; and fourth day—4 miles.

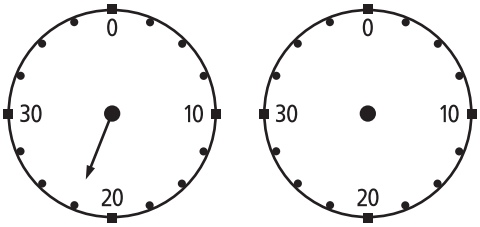
The mode of the data = _____ miles

The mean of the data = _____ miles

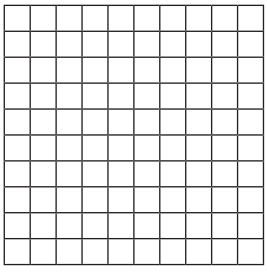
4 Lee delivers newspapers each day. Write a number sentence for the total number of newspapers that Lee delivers in 45 days. Use T for the number of newspapers.

Total number =

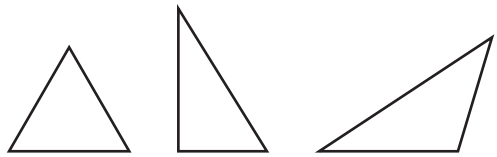
5 The needle shows 22.5 pounds. Draw a needle that indicates 17.5 pounds on the scale:



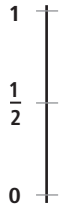
6 Shade 12 hundredths:



7 Write RI for right triangle, AC for acute triangle, and OB for obtuse triangle:



8 Mark $\frac{3}{5}$ on the number line:



9 Matthew wants to buy a cap for $12.10, a baseball jersey for $23.80, and a poster for $4.67. Estimate the price by rounding the prices to the nearest $1.00.

10 The factors of 6 are (1, 2, 3, 6).
The factors of 7 are (1, 7).

List the factors of 8: ( )

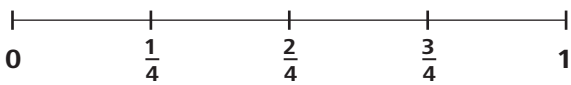
11 Sam takes a 1-mile walk along a trail. Which of the following is a reasonable amount of time for Sam to walk the trail?

a. 30 minutes

b. 1 hour

c. 1 day

12



You reach into a bag with 1 blue, 1 white, and 2 red marbles and pick 1 without looking. What is your chance of getting a red marble? Locate that number on the number line and write ① above it.

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QUIZ 22

Name _____ Date _____

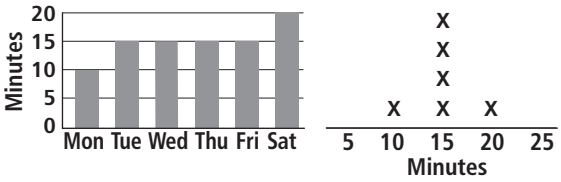
1

$$\begin{array}{r} 737 \\ +\ 168 \\ \hline \end{array} \qquad \begin{array}{r} 830 \\ -\ 367 \\ \hline \end{array} \qquad \begin{array}{r} 5 \\ \times\ 6 \\ \hline \end{array} \qquad 5\overline{)50}$$

2 A movie starts at 3:10 and ends at 6:00. How long is the movie?

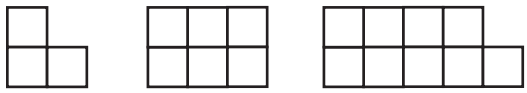
_____ hour(s) _____minutes

3 Jan walked every day for one week. The bar graph and line plot show how many minutes she walked.



What information can the bar graph show but the line graph does not show?

4 **Figure 1** **Figure 2** **Figure 3**



Look at the pattern of the squares by the increasing number of figures.

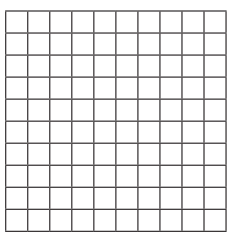
In the following number sentence, N stands for the figure number and T stands for the total number of squares in figure N. Complete the number sentence showing the number of squares in a figure:

T = _____

5 My height is about:

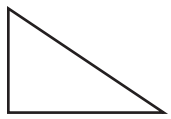
_____ feet _____ inches

6 Color in 15 hundredths of this picture.



7 Each triangle has two names: by angles (right, acute, and obtuse) and by sides (equilateral, isosceles, and scalene).

Write two names for this triangle:

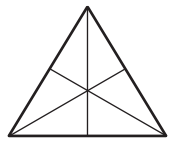


1.

2.

8 The triangle is divided into _____ths.

Shade $\frac{2}{6}$.



9 Mrs. Jones bought 8 pints of berries. Each pint cost 87¢. Mrs. Jones used her calculator to find the cost of the berries and the display showed 696. What was the cost of the berries in dollars?

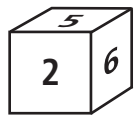
10 Multiples of 2 can go on forever: 2, 4, 6, 8, …

List 4 multiples of 7: _____

11 The product of 2. 9 × 2 is about 6.

The product of 2.9 × 7 is about _____ .

12 A number cube has 6 faces and they are numbered 1 through 6. The probability of tossing the cube and getting 5 on the top when it lands is 1 out of 6 or $\frac{1}{6}$. The probability of getting an even number on the top when it lands is:



_____ out of _____ or ☐

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QUIZ 23

Name _____ Date _____

1 $\begin{array}{r} 364 \\ +\ 468 \\ \hline \end{array}$ $\begin{array}{r} 530 \\ -\ 272 \\ \hline \end{array}$ $\begin{array}{r} 62 \\ \times\ 5 \\ \hline \end{array}$ $6\overline{)24}$

2 A candy store wants to divide 30 pounds of candy into 1-pound containers, 3-pound containers, or a combination of the two kinds of containers. Find at least 3 ways to divide 30 pounds of candy into the containers:

1.

2.

3.

3 Bob sold tickets on 5 days and the median number of tickets he sold was 7. Make a list of the number of tickets he sold for 5 days so that the median number of tickets is 7:

____, ____, ____, ____, ____.

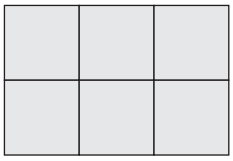
4 Fill in the blanks in the "Out" row:

In	4	5	10	15	7
Out	12	15	30		

In the following number sentence, N stands for the numbers in the "In" row. Complete the number sentence below:

The numbers in the "Out" row = N _____

5

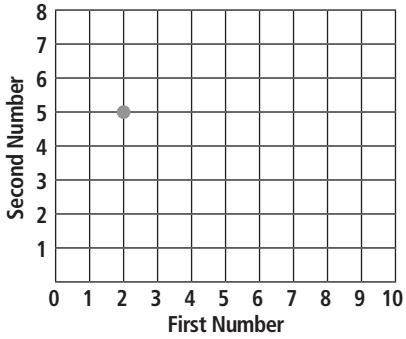


Area = ____ square units

Perimeter = ____ units

6 Arrange the numbers from largest to smallest: 40.001, 40.103, 40.131

7



The coordinates of the point are (2,5) Write coordinates of 3 more points so that the connection of the 4 points makes a square:

(2, 5); (,); (,); (,)

8 $\frac{2}{4} + 1\frac{2}{4} =$

9 What are the 4 items you can buy with $8.00 (there is no change)? Circle the 4 items in the box.

Crayon	$2.00
Notebook	$1.50
Marker	$0.50
Poster	$5.00
Card	$1.00

10 Which one is the multiple of 6?

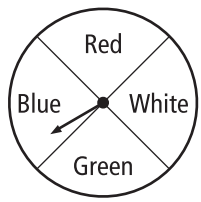
24 25 26 27

11 The quotient of 141 ÷ 2 is about:

7 70 700

12 What fraction of the circle is white? _____

What is the probability of the spinner landing on white? _____



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QUIZ 24

Name _____ Date _____

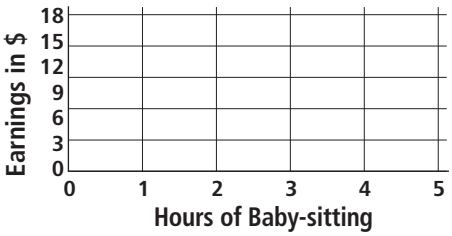
1 $\begin{array}{r} 3{,}456 \\ +\ 2{,}567 \end{array}$ $\begin{array}{r} 3{,}453 \\ -\ 1{,}377 \end{array}$ $\begin{array}{r} 82 \\ \times\ 8 \end{array}$ $8\overline{)72}$

2 The human heart pumps about 24 liters of blood in 5 minutes. How many liters of blood are pumped in 40 minutes?

3 Jan earns $3 each hour she baby-sits. Complete the table:

Hours of baby-sitting	0	1	2	3	4
Earnings in $	0	$3	$6		

Make a line graph using the data in the table:

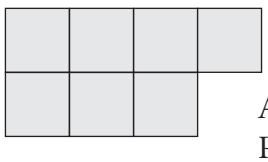


4 **Example:** If N stands for a number then:

5 N = N + N + N + N + N or 5 × N

3R = _____ or _____

5

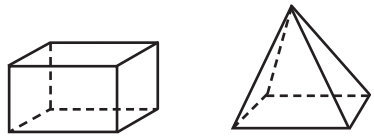


Area = ____ units^2

Perimeter = ____ units

6 Mike's running record was 43.12 seconds. Tyrone ran one-hundredth of a second faster than Mike's record. What was Tyrone's record?

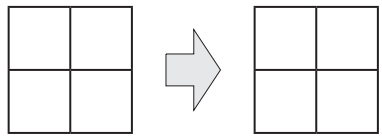
7



Write 2 properties that are common to the figures:

8 Using the picture, solve the subtraction problem:

$\frac{3}{4} - \frac{1}{4} =$



9 Write the value of these coins:

4 quarters, 2 dimes, 3 nickels, and 12 pennies

= $_____

10 Circle the prime number that is a factor of 17:

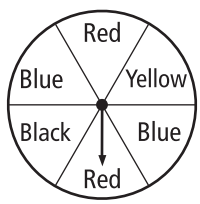
3 6 5 17

11 The quotient of 239 ÷ 3 is about:

8 80 800

12 What fraction of the circle is black? _____

What is the probability of the spinner landing on black? _____



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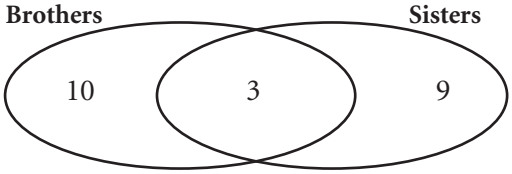
QUIZ 25

Name _____ Date _____

1 $\begin{array}{r} 82 \\ \times\ 9 \\ \hline \end{array}$ $\qquad 9\overline{)270}$

2 Typically, you get approximately 34 cups of popcorn from 1 cup of kernels. If you wanted about 20 cups of popcorn, how many cups of kernels should you pop?

3 The Venn diagram shows the result of a class survey of students who have brothers, students who have sisters, and students who have both brothers and sisters.

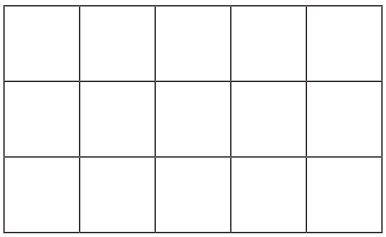


How many students have brothers as well as sisters?

4 Admission to the fun park is $7.00 and each ride is $3.00. If you want N number of rides, what is the total amount of money you need for admission and the number of rides?

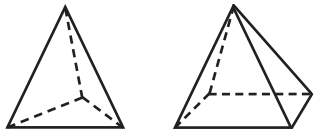
Total amount of money = _____

5 Shade a rectangle with an area of 8 cm^2.



6 Write the number:
Ninety million, two hundred thousand

7



Write 1 property that is different between the figures:

8 $\frac{2}{4} - \frac{1}{4} = \frac{1}{0}$. Is this correct? If not, write the sentence correctly. Explain your answer using any model or illustration.

9 Write the value of these coins:

5 quarters, 2 dimes, 4 nickels, and 12 pennies

= $_____

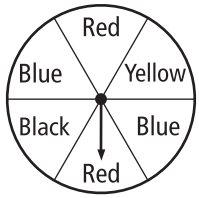
10 Circle the prime number that is a factor of 24:

2 5 10 15

11 The quotient of 239 ÷ 8 is about:

a. 3
b. 30
c. 300

12 What is the probability of the spinner landing on black or red? _____



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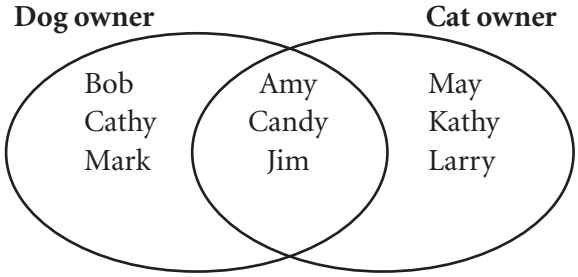
QUIZ 26

Name _____ Date _____

1. $\begin{array}{r} 24 \\ \times\ 40 \\ \hline \end{array}$ $\qquad 40\overline{)360}$

2. Ella wants to divide $25 with her sister equally. How much money does each person get and how should any remainder be handled?

3. 

   Sue has 1 dog and 3 cats. Place Sue's name in the diagram.

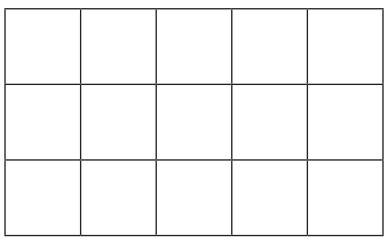
4.

Column A	Column B
3	9
4	12
10	
12	

   Fill in the blanks in column B.

   A stands for the number in column A, so the numbers in column B = A _____.

5. Shade a rectangle with an area of 12 cm^2.



6. Write a number that is greater than 215 using the digits 1, 2, and 5 once in the number:

   215 < _____

7. Draw 2 lines on the rectangle below to make 4 triangles:

8. Show a fraction that is equal to 1. Draw an illustration of the fraction:

9. James buys his lunch at school. Each day he wants to have juice that costs $1.05, a sandwich that costs $1.20, and fruit that costs $.95.

   Estimate how much money James needs to buy lunch for 3 days.

10. Fill in the ( )s: 6×58 is the same as
    $= (6 \times 60) - (\quad)$ and
    $= 360 - (\quad)$
    $= (\quad)$

11. The quotient of $239 \div 80$ is about:

    a. 3 **b.** 30 **c.** 300

12. A gumball machine has the following gumballs: 10 red, 4 white, and 6 orange. If you put in a quarter and turn the handle for 1 gumball, what is the probability that you will get a red gumball?

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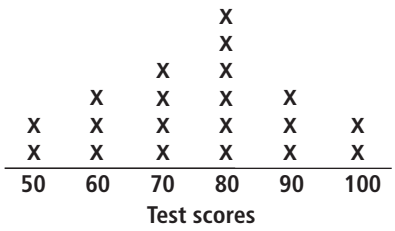
QUIZ 27

Name _____ Date _____

1. $24 \times 12 =$ $\qquad$ $60\overline{)420}$

2. Hot dogs often come in packages of 10. Buns come in packages of 12. Drinks come in packages of 12. If we want to buy enough packages for 36 people to have 1 hot dog, 1 bun, and 1 drink each, how many packages of each do we need to buy?

3. The line plot shows class test scores for Ashley's class:



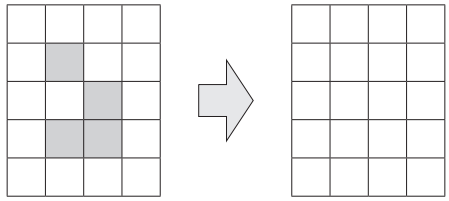
What is the mode score for the class?

4. A plant grows 9 inches per day. If it is already 16 inches tall, how tall will it be in 3 days?

5. The perimeter of a square is 36 inches. What is the length of one side of the square?

6. Write the numeral that has 18 hundreds, 2 tens and 5 ones:

7. Draw the figure after a slide to the right.



8. If $1\frac{1}{2}$ cups of flour are needed for a batch of cookies, how many cups of flour are needed for 3 batches?

9. Draw 3 coins to show 60¢:

10. 7×59 is the same as

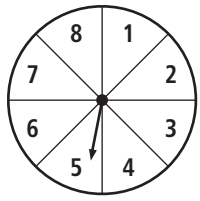
$= (7 \times 60) - (\quad)$ and

$= 420 - (\quad)$

$= (\quad)$

11. Round 45,239 to the nearest thousand:

12. You and your brother are playing a game with a spinner. Your brother wins if the arrow lands on any number smaller then 5 on the spinner. You win if the arrow lands on any number larger than 5. Is the game fair?



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QUIZ 28

Name _____ Date _____

1

$25 \times (20 + 4) =$

$80\overline{)640}$

2 A candy store wants to divide 30 pounds of candy into 2-pound bags, 3-pound bags, or a combination of the two kinds of bags. Find at least 3 ways to divide 30 pounds of candy into the bags:

1.

2.

3.

3 Mark's classmates' heights:

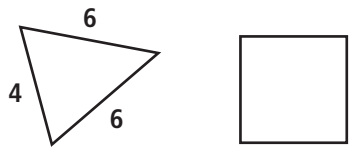
Amy 1.3 m, Bob 1.5 m, Candy 1.4 m, Cathy 1.3 m, Mark 1.3 m, Jim 1.4 m, Kay 1.4 m, Larry 1.5 m, Mark 1.4 m, Nick 1.6 m, Peggy 1.4 m, Penny 1.5 m, Scott 1.4 m, and Tom 1.4 m

Make a line plot using Xs for the data:

1.3m 1.4m 1.5m 1.6m

4 You make $3.00 an hour dog-sitting. How much money would you make for 2, 3, 4, or 5 hours of dog-sitting? If T stands for the total amount of money you are making an hour and N stands for the number of hours, then T = _____

5

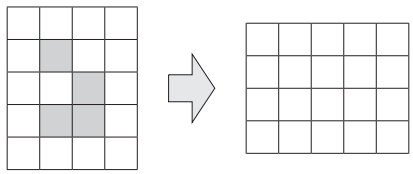


If both the square and the triangle above have the same perimeter, what is the length of each side of the square?

6 Expanded form for 543 is 500 + 40 + 3.

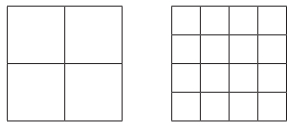
Write 54,650 in expanded form:

7 Draw the figure after it has been turned clockwise $\frac{1}{4}$ turn.



8 Write 1 equivalent fraction in the ( ). Then shade the two equivalent fractions in the boxes:

$\frac{3}{4} = (\quad)$



9 Circle 3 things in the box that you can buy with $4.00 (without getting any change):

Crayon	$2.00
Notebook	$1.50
Marker	$0.50 each
Poster	$5.00 each
Card	$1.00 each

10 8×39 is the same as

$= (8 \times 40) - (\quad)$ and

$= 320 - (\quad)$

$= (\quad)$

11 Round $12.08 to the nearest $1.00.

12 The gumball machine has 100 gumballs: 20 are red, 30 are yellow, and 50 are blue. Aisha gets 10 gumballs from the machine. What is your best prediction of the number that are red?

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QUIZ 29

Name _____ Date _____

1

$25 \times (60 + 2) =$

$70\overline{)490}$

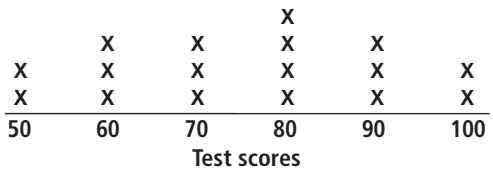
2 A candy store wants to divide 24 pounds of candy into 2-pound bags, 3-pound bags, or combination of the two kinds of bags. Find at least 3 ways to divide 24 pounds of candy into the bags:

1.

2.

3.

3 The line plot shows class test scores:



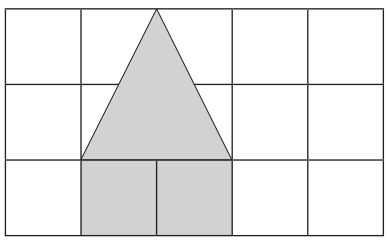
Fill in the boxes:

Range of Score	Mode Score	Median Score

4 Susan spends 20 minutes on homework every day. T stands for the total number of minutes that Susan did homework after N number of days. Write T in terms of N :

T (minutes) = N _____

5 Each square below = 1 cm^2. Find the area of the shaded figure:



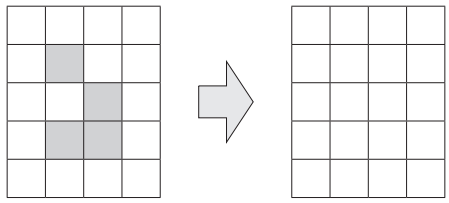
_____ cm^2

6 Write a 4-digit number using 4, 5, 1, and 6 once:

Least numeral: _____

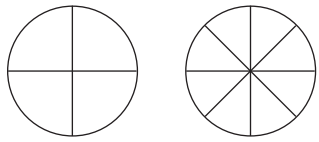
Greatest numeral:_____

7 Draw the figure after it is flipped left to right:



8 Write 1 equivalent fraction in the ( ). Then shade the two equivalent fractions in the circles:

$\frac{3}{4} = (\quad)$



9 6 quarters, 6 dimes, 2 nickels, and 2 pennies = $ _____

10 What is a prime number? List 5 prime numbers:

11 Round $25.63 to the nearest $1.00:

12 Jim likes to wear only red and blue. He has 1 red shirt and 1 blue shirt and 1 red pair of pants and 1 blue pair of pants. He likes to wear the same color of shirts and pants together. How many different combinations of outfits can he have?

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QUIZ 30

Name _____ Date _____

1. $(62 \times 10) + (62 \times 2) = ____ \times ____$

$61\overline{)549}$

2.

Sugar	2 cups	4 cups
Lemonade	1 can	2 cans
Water	1 quart	2 quarts
Number served	4 people	8 people

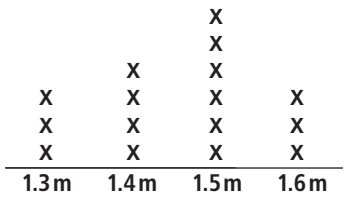
Look at the lemonade recipe. How much of each ingredient do you need to make enough for 24 people?

Sugar: _____ cups

Lemonade: _____ cans

Water: _____ quarts

3. The line plot shows heights of Wanda's class:

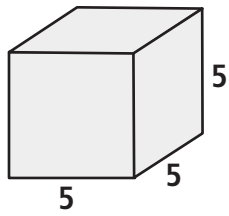


Fill in the boxes:

Range of Heights in m	Mode Height in m	Median Height in m

4. The water in a pond is rising 3 cm each hour during a rainstorm. If the rain continues at the same rate, the increased depth will depend on the number of hours. If H stands for the hours, then the increased depth = _____

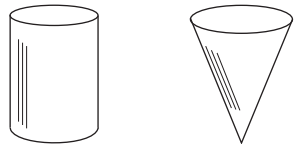
5. All the edges of the cube are 5 cm. How many 1 cm^3 cubes can fit in the large cube?



_____ 1-cm^3 cubes

6. $\frac{15}{100}$ = _____ in decimal

7.



Write one property that is different between the two figures:

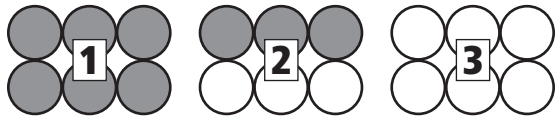
8. $\frac{5}{8} + \frac{7}{8} =$

9. Jaden buys his lunch at school. Each day he wants to have juice that costs $0.95, a sandwich that costs $1.25, and fruit that costs $0.80. About how much money does Jaden need to buy lunch for 5 days?

10. A prime number between 26 and 30 is:

11. Estimate: 31 + 29 + 28 + 33 = _____

12. There are 3 bags of 6 marbles each. If you pick a marble without looking in the bag, which bag gives the probability of 1 of picking a black marble? Circle the one:



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Answer Keys

Cycles 1 to 60 ..... page 160

Progression Chart: Cycles ..... page 204

Quizzes 1 to 30 ..... page 205

Progression Chart: Quizzes ..... page 220

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Answer Key: Cycles

Cycle 1

1. **A.** 12 120 1,200
   B. 6 60 600
   C. 16 160 400

2. **A.** 18 + 18 + 18 + 18 = 72 wheels
   B. 18 + 18 + 18 + 18 + 18 + 18 = 108 wheels
   C. 18 + 18 + 18 + 18 + 18 + 18 + 18 + 18 = 144 wheels

3. **A.** 9 years old
   B. 12 years old

4. **A.**

   B.

   C.

5. **A.**

   B.

   C.

   D.

6. **A.** Answers will vary and might include: 11 + 1, 13 – 1, 15 – 3, 20 – 8, 6 + 6
   B. Answers will vary and might include: 10 + 26, 35 + 1, 40 – 4, 6 x 6

7.

	A	B
Number of sides	4	3
Number of angles	4	3
Name	square	triangle

8. The second one (B); the bottom half is bigger than the upper half.

9. **A.** Yes. Jim has 30¢ + 10¢ = 40¢.
   B. No. Sue has 25¢ + 30¢ + 10¢ = 65¢

10. June 18

11. **A.** a. 400
    B. c. 600

12. 4 different sundaes:
    chocolate-peanuts; chocolate-cherry;
    vanilla-peanuts; vanilla-cherry

Cycle 2

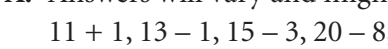
1. **A.** 14 140 1,400
   B. 3 30 300
   C. 14 140 600

2. **A.** 9 – 6 = 3 apples, 9 + 6 = 15 apples
   B. 5 + 5 + 5 = 15; 5 apples in each bag

3. **A.** 25 years old
   B. 16 years

4. **A.** b
   B. ΔOΔOOΔOOOΔO O O O

5. **A.**

   B.
   
   C.

6. **A.** Answers will vary and might include: 30 + 5, 31 + 4, 40 – 5, 5 × 7
   B. Answers will vary and might include: 10 + 8, 9 + 9, 20 – 2, 2 × 9

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7

	A	B
Number of sides	4	4
Number of pairs of parallel lines	1	2
Name	trapezoid	parallelogram

8 The second circle (B); the four sections are not equal.

9 **A.** 53¢

B. No. Sue has 25¢ + 10¢ + 10¢ + 6 ¢ = 51¢.

10 8 days

11 **A.** a. 200

B. a. 100

12 You can make 8 sandwiches:
white bread + chicken + lettuce
white bread + chicken + tomato
white bread + beef + lettuce
white bread + beef + tomato
wheat bread + chicken + lettuce
wheat bread + chicken + tomato
wheat bread + beef + lettuce
wheat bread + beef + tomato

Cycle 3

1 **A.** 15 157 1,535

B. 6 60 600

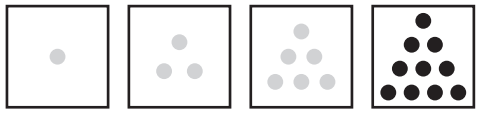
C. 13 140 800

2 **A.** 4 swimmers, 8 in the sand

B. 18 + 18 + 18 + 18 + 18 = 90 wheels

3 **A.** 23 years old

B. 27 years old

4 **A.** 

B. 4 dots

5 Answers will vary.

6 **A.** Answers will vary and may include:
10 – 1, 5 + 4, 3 + 6, 100 – 91

B. Answers will vary and may include:
99 + 1, 101 – 1, 90 + 10, 200 – 100

7

	A	B
Number of right angles	0	4
Number of acute angles	2	0
Number of pairs of parallel lines	2	2
Name	rhombus parallelogram	rectangle

8 The second one (B); the three parts are not equal to each other.

9 **A.** b, c, and d

B. b. 25¢

10 **A.** 21 days

B. 17 days

11 **A.** a. 800

B. b. 800

12 You can make 8 sandwiches:
white bread + chicken + lettuce
white bread + chicken + tomato
white bread + turkey + lettuce
white bread + turkey + tomato
rye bread + chicken + lettuce
rye bread + chicken + tomato
rye bread + turkey + lettuce
rye bread + turkey + tomato

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Answer Key: Cycles

Cycle 4

1. **A.** 13 143 1,443
   B. 4 240 2,400
   C. 11 121 4,400

2. **A.** 60 apples
   B. 6 apples
   C. 6 apples

3. **A.** 29 years old
   B. 26 years old

4. **A.**
   B. 4 8 12 16 **20** **24** **28**

5. Answers will vary.

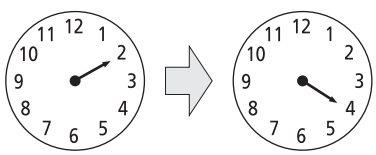
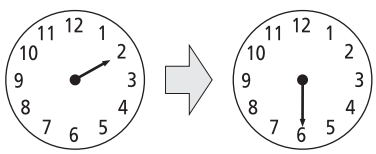
6. **A.** Answers will vary and may include:
   90 + 9, 91 + 8, 100 – 1, 101 – 2
   B. Answers will vary and may include:
   10 + 5, 20 – 5, 13 + 2, 12 + 3

7.

	A	B
Number of sides	5	3
Number of angles	5	3
Name	pentagon	triangle

8. Rectangle D; the four parts are not equal.

9. **A.** corn or peas
   B. d. a dime

10. **A.** 
    B. 

11. **A.** b. 600
    B. b. 600

12. 8 combinations:
    red + gray
    red + burgundy
    silver + gray
    silver + burgundy
    black + gray
    black + burgundy
    green + gray
    green + burgundy

Cycle 5

1. **A.** 14 147 1,435
   B. 5 50 500
   C. 14 150 700

2. **A.** 60 – 26 = 34 cookies
   B. 70 – 28 = 42 points

3. **A.** Frank
   B. 3 hours more

4. **A.**
   B. 16 squares

5. **A.** ×
   B. ×
   C. ×
   D. ×

6. **A.** Answers will vary but may include:
   30 + 30, 40 + 20, 60 + 0, 70 – 10
   B. Answers will vary but may include:
   100 + 100, 199 + 1, 300 – 100, 400 – 200

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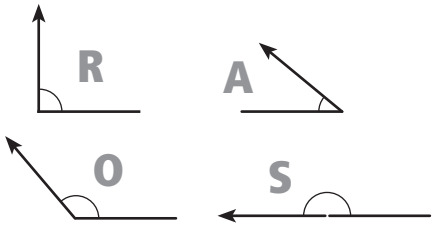
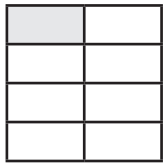
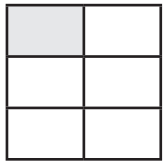
7 

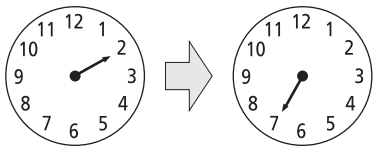
8 **A.** eighths 

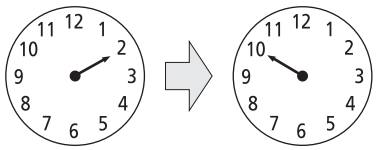
B. sixths 

C. $\frac{1}{8} < \frac{1}{6}$

9 **A.** peas

B. c. $1

10 **A.** 

B. 

11 **A.** c. $10.00

B. b. $8.00

12 6 different pizza combinations:

pepperoni + sausage

pepperoni + peppers

pepperoni + mushrooms

sausage + peppers

sausage + mushrooms

peppers + mushrooms

Cycle 6

1 **A.** 15 165 1,665

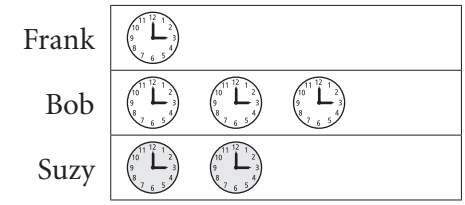
B. 2 220 2,200

C. 18 198 4,100

2 **A.** 5 swimmers, 10 in the sand

B. 8 apples in each bag

3 **Hours at Work**



Each equals 3 hours.

4 **A.** 25 squares

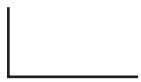
B. 36 squares

5 Answers will vary.

6 **A.** b. 12 inches

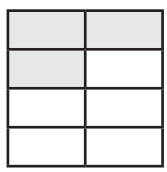
B. 24 inches

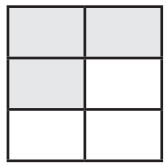
C. 72 inches

7 **A.** right 

B. acute

C. obtuse

8 **A.** eighths 

B. sixths 

C. $\frac{3}{8} < \frac{3}{6}$

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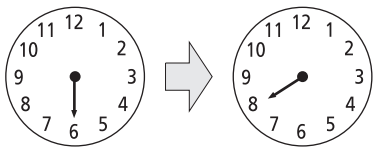
Answer Key: Cycles

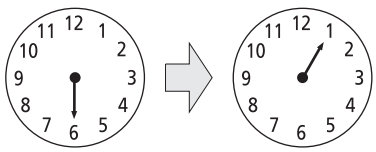
9 **A.** c. 2 dimes and 5 pennies

B. b. $4.50

10 **A.**



B.



11 **A.** b. $4.00

B. b. $4.00

12 6 sandwich combinations:

lettuce + tomato

lettuce + onion

lettuce + pickles

tomato + onion

tomato + pickles

onion + pickles

Cycle 7

1 **A.** 792 149

B. 6 8 10 12 14

C. 2 4 16 18 20

2 $2 \times 6 = 12, 6 \times 2 = 12$

$2 \times 9 = 18, 9 \times 2 = 18$

3 **A.** 150 cups

B. 50 cups

4 **A.** $5,000

B. $6,000

C. $7,000

D. $8,000

E. $9,000

5 Answers will vary.

6 **A.** 36 inches

B. 72 inches

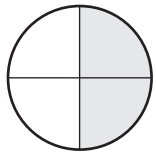
C. 108 inches

D. 200 centimeters

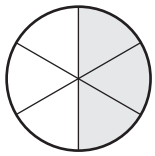
7

	A	B	C
Number of right angles	0	1	0
Number of acute angles	2	2	3
Number of obtuse angles	1	0	0

8 **A.** fourths



B. sixths

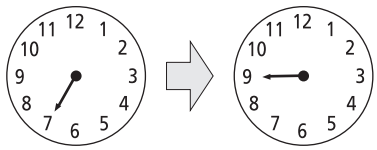


C. $\frac{2}{4} = \frac{3}{6}$

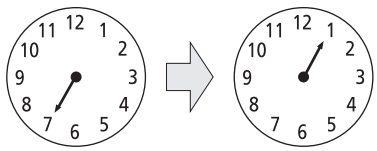
9 **A.** 10 cents

B. John has 15 cents more.

10 **A.**



B.



11 **A.** $3.00

B. $5.00

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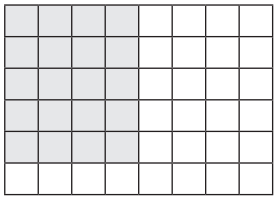
12 4 combinations:
black pants + black shirt
black pants + blue shirt
white pants + black shirt
white pants + blue shirt

Cycle 8

1 **A.** 792 36
B. 15 20 25 30 35
C. 5 10 40 45 50

2 **A.** 5 × 6 = 30 children
B. 5 × 4 = 20



3 **A.** 6 students
B. Mrs. Jones' class

4 **A.** 10 feet
B. 12 feet
C. 14 feet
D. 16 feet
E. 20 feet

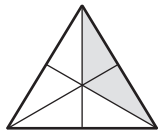
5 **A.** c. miles and kilometers
B. b. yards and meters
C. a. inches and centimeters

6 Answers will vary but may include:
A. 10 + 9 + 1 = 20
B. 10 + 10 + 80 = 100
C. 10 + 10 + 63 = 83

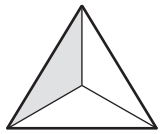
7

	A	B	C
Number of right angles	0	0	4
Number of acute angles	2	0	0
Number of obtuse angles	2	6	0

8 **A.** sixths



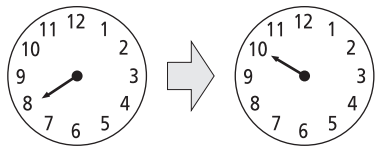
B. thirds



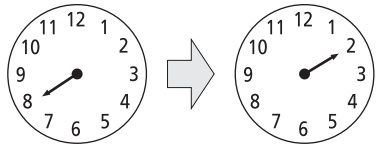
C. $\frac{2}{6} = \frac{1}{3}$

9 **A.** Bill has 7 cents more.
B. John has 15 cents more.

10 **A.**



B.



11 **A.** $7.00
B. $10.00

12 6 combinations:
black pants + black shirt
black pants + blue shirt
red pants + black shirt
red pants + blue shirt
white pants + black shirt
white pants + blue shirt

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Answer Key: Cycles

Cycle 9

1 **A.** 1,017 463

B. 27 36 45 54 63

C. 9 18 72 81 90

2 **A.** Mark: $9 \times \$7.00 = \$63.00$
Barb: $7 \times \$9.00 = \$63.00$
They saved the same amount of money.

B. 9×9 cards = 81 cards

3 **A.** Suzy

B. 10 bones

4 Mary, Jim, and Rachael

5 Answers will vary.

6 Answers will vary and may include:

A. $10 + 1 = 11$

B. $10 - 5 = 5$

C. $2 \times 7 = 14$

D. $5 \times 9 = 45$

7

	A	B	C
Number of right angles	1	0	2
Number of acute angles	2	2	1
Number of obtuse angles	0	2	2

8 **A.**

B.

C. $\frac{1}{2} < \frac{3}{4}$

9 **A.** No. He has \$2.50.

B. c. about \$4.00

10 **A.** 2 hours

B. 4 hours

11 **A.** 6 \$1 bills

B. Yes. She has $97¢ \times 10 = \$9.70$

12 6 combinations:

white shirt + red hat
white shirt + black hat
pink shirt + red hat
pink shirt + black hat
black shirt + red hat
black shirt + black hat

Cycle 10

1 **A.** 1,041 460

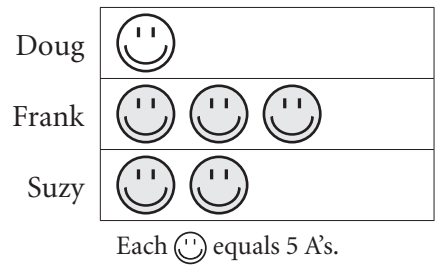
B. 15 36 10 30 63

C. 2 10 72 18 50

2 **A.** d. a, b, and c are all correct

B. Answers will vary but may include:
$3 \times 4 = 12$, $4 \times 3 = 12$, $2 \times 6 = 12$,
$6 \times 2 = 12$, $3 + 3 + 3 + 3 = 12$,
$4 + 4 + 4 = 12$

3



4

Input	Output
1	2
3	6
4	8
8	16
9	18

The rule is: Double the input number or multiply by 2.

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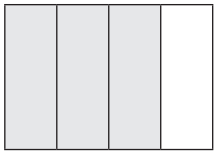
5 Answers will vary.

6 **A.** 10 dimes
B. 10 tens
C. 20 tens
D. 30 tens

7 B, C, A, D

8 Answers may vary. Here are possible answers:

A. 

B.

C. $\frac{3}{4} > \frac{3}{6}$

9 $10 – $4 = $6.00
$6.00 ÷ $2 = 3 weeks
Antonio needs to save for 3 weeks.

10 **A.** 5 hours
B. 2 hours

11 **A.** 5 $1 bills
B. Yes. She has 97¢ × 20 = $19.40

12 4 combinations:
red shirt + yellow skirt
red shirt + pink skirt
pink shirt + yellow skirt
pink shirt + pink skirt

Cycle 11

1 **A.** 1,061 163
B. 12 16 15 24 21
C. 4 8 24 36 30

2 **A.** 3 × 8 = 24 tiles
B. 4 × 8 = 32 toys

3 **A.** Bill
B. 15 more pancakes

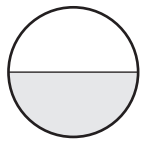
4 No. In each step, the number increased by 2. After 16, the next number in the pattern is 18.

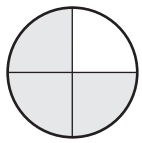
5 Answers will vary slightly but may include: body temperature, 98°F, 36°C; room temperature, 80°F, 21°C

6 8 × 100 plus 4 × 10 plus 2 × 1
= 800 + 40 + 2 = 842

7

	A	B
Number of faces	6	5
Name of the faces/ shapes	rectangle	triangle rectangle
Number of edges	12	8
Number of vertexes	8	5
Name of the figure	rectangular prism	rectangular pyramid

8 **A.** 

B. 

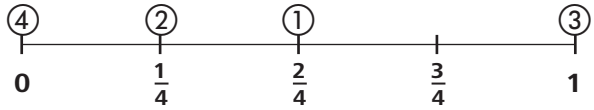
9 **A.**

B.

C.

10 1:15

11 **A.** b. 60 minutes
B. b. 2 hours

12 

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Answer Key: Cycles

Cycle 12

1 **A.** 950 63

B. 18 24 30 36 42

C. 6 12 48 54 60

2 **A.** a. 30 × 5

B. a. 18 × 3

3 **A.** Jon

B. 10 pancakes

4 **A.** 0, 2, 4, 6, 8, . . . **52**

B. 3, 5, 7, 9 11, . . . **51**

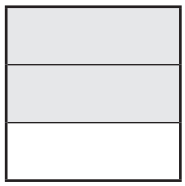
5 Answers will vary.

6 9 × 100 plus 4 × 10 plus 4 × 1
= 900 + 40 + 4 = 944

7 **Common:** Both are solid figures and have rectangular bases.

Different: Number of faces: 6 vs. 5
Number of edges: 12 vs. 8
Number of vertices: 8 vs. 5
Shape of faces: rectangle vs. triangle.

8 **A.**

B. 

9 **A.** 25¢ 25¢ 25¢ 25¢

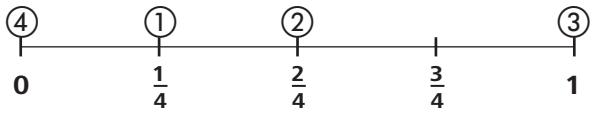
B. 10¢ 10¢ 10¢ 10¢ 10¢ 10¢ 10¢ 10¢ 10¢ 10¢

C. 25¢ 25¢ 25¢ 10¢ 10¢ 5¢

10 5:30, 5:40

11 **A.** b. 1.5 hours

B. a. 30 minutes

12 

Cycle 13

1 **A.** 839 363

B. 21 28 35 42 49

C. 7 14 56 63 70

2 **A.** 7 × $3.00 = $21
8 × $2.00 = $16
$21 + $16 =$37.00

B. b. 130 × 42

3 **A.** Pat

B. Sue

4 **A.** $25.00

B. $30.00

C. $35.00

D. $40.00

5 **A.** 74°F

B. 75°F

6 632 = 6 × 100 plus
3 × 10 plus
2 × 1

7

	A	B
Number of faces	4	5
Name of the faces/ shapes	triangle	triangle rectangle
Number of edges	6	8
Number of vertexes	4	5
Name of the figure	triangular prism	rectangular pyramid

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8 **A.** ✶——————————

B. ✶——————————

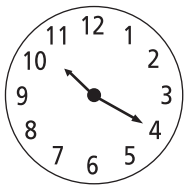
C. ✶——————————

9 **A.** 25¢ 25¢ 25¢ 25¢ 10¢ 10¢

B. 10¢ 10¢ 10¢ 10¢ 10¢ 10¢ 10¢ 10¢ 10¢ 10¢ 10¢ 10¢

C. 25¢ 25¢ 25¢ 25¢ 10¢ 5¢ 5¢

10



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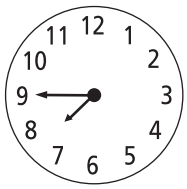


7:45

11 **A.** 6

B. 10

C. 16

D. 20

E. 22

12 **A.** 1 out of 6 or $\frac{1}{6}$

B. 2 out of 6 or $\frac{2}{6}$

Cycle 14

1 **A.** 728 163

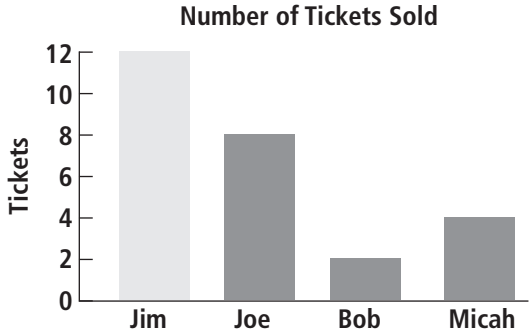
B. 24 32 40 48 56

C. 8 16 64 72 80

2 **A.** 7 + 8 = 15 and 7 × 8 = 56; 7 and 8

B. 6 + 8 = 14 and 6 × 8 = 48; 6 and 8

3



4 **A.** 28 feet

B. 32 feet

5 **A.** 78°F

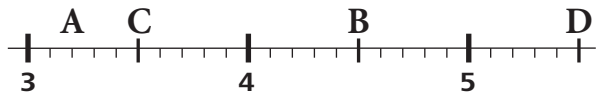
B. 85°F

6 836 = 8 × 100 plus
3 × 10 plus
6 × 1

7 **Common:** Both are solid figures, have triangular faces, and are pyramids.

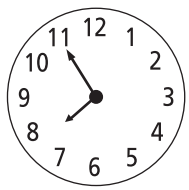
Different: Number of faces: 4 vs. 5
Number of edges: 6 vs. 8
Number of vertices: 4 vs. 5

8

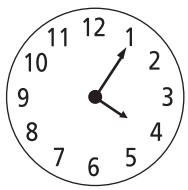


9 b.

10



7:55



4:05

11 **A.** 9 **C.** 24 **E.** 33

B. 15 **D.** 30

12 **A.** 1 out of 6 or $\frac{1}{6}$

B. 3 out of 6 or $\frac{3}{6}$

Answer Key: Cycles

Cycle 15

1. **A.** 604 311
   B. 35 35 21 21 24
   C. 24 25 48 48 42

2. 10 + 10 + 8 = 28 points

3. **A.** Jamie
   B. 6 strikes

4. 11 o'clock

5. Width = 5.5 cm, Height = 2.5 cm, Perimeter = 16 cm

6. **A.** 46
   B. 106

7. B, C, A

8. **A.** ✶———————————
   B. ✶——————————
   C. ✶——————————

9. **A.** $10.00 – $7.55 = $2.45
   B. $10.00 – $4.75 = $5.25

10. **A.** 8:15 and 15 minutes after 8
    B. 10:25 and 25 minutes after 10

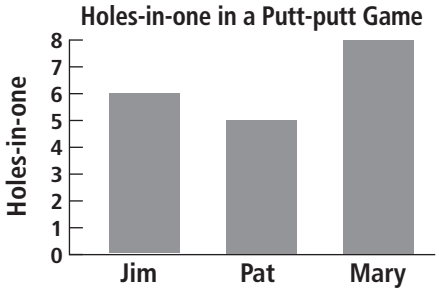
11. **A.** 12
    B. 20
    C. 32
    D. 40
    E. 44

12. The chance of your brother winning is 4 out of 6 and the chance of your winning is 2 out of 6. The game is not fair; it favors your brother.

Cycle 16

1. **A.** 8,444 2,511
   B. 49, 16, 25, 36, 64
   C. 81, 56, 48, 36, 70

2. 10 + 10 + 10 + 10 + 8 + 8 = 56 points

3. 

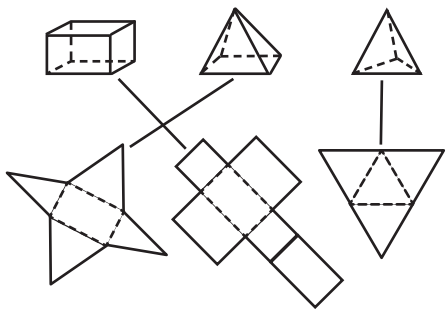
4.

Time	Depth in cm
1 o'clock	3 cm
2 o'clock	6 cm
3 o'clock	9 cm
4 o'clock	**12 cm**
5 o'clock	**15 cm**
6 o'clock	**18 cm**

5.

   Perimeter = $6\frac{2}{4}$ inches

6. **A.** 47
   B. 117

7. 

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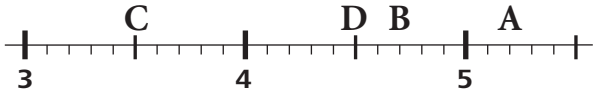
8 

9 **A.** $5.00 – $3.55 = $1.45

B. $10.00 – $2.75 = $7.25

10 **A.** 5:05 and 5 minutes after 5

B. 1:55 and 55 minutes after 1

11 **A.** 18 **C.** 48 **E.** 66

B. 30 **D.** 60

12 **A.** white gumball

B. orange gumball

Cycle 17

1 **A.** 13,144 1,511

B. 72 72 9 8

C. 42 42 7 6

2 **A.** $5 \times 3 = 15$
$15 \div 3 = 5$
$15 \div 5 = 3$

B. $7 \times 3 = 21$
$21 \div 3 = 7$
$21 \div 7 = 3$

3 **A.** Tuesday

B. Friday

4

Days	Height of Water in the Glass
Starting	12 cm
Day 1	10 cm
Day 2	**8 cm**
Day 3	**6 cm**
Day 4	**4 cm**
Day 5	**2 cm**

5 **A.** 2.5 cm

B. 4 cm

C. 4.5 cm

Perimeter: 11 cm

6 **A.** 3,000 cm

B. 4 m

C. 5,000 cm

D. 50,000 cm

E. 7 m

7 **Common:** Both have 4 sides, 4 right angles, and 4 corners.

Different: One has longer sides than the other.

8 Answers will vary but may include:

A. $\frac{2}{3}$

B. $\frac{4}{4}$

C. $\frac{6}{5}$

9 The correct change: $10.00 – ($5.25 + $1.25 + $.50) = $3.00. Therefore, $2.90 is not correct.

10 **A.** 5:30 or half past 5

B. 11:30 or half past 11

11 **A.** b. 90

B. b. 60

12 **A.** $\frac{2}{4}$ or $\frac{1}{2}$

B. $\frac{2}{4}$ or $\frac{1}{2}$

C. $\frac{2}{4}$ or $\frac{1}{2}$

D. $\frac{2}{4}$ or $\frac{1}{2}$

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Answer Key: Cycles

Cycle 18

1. **A.** 6,844 2,115
   B. 28 28 7 4
   C. 40 40 8 5

2. **A.** $7 \times 2 = 14$
   $14 \div 2 = 7$
   $14 \div 7 = 2$
   B. $6 \times 4 = 24$
   $24 \div 4 = 6$
   $24 \div 6 = 4$

3. **A.** Jim
   B. Mary

4.

Weeks	Height of Water in the Glass
Starting	10.0 inches
End of 1st week	8.5 inches
End of 2nd week	**7 inches**
End of 3rd week	**5.5 inches**
End of 4th week	**4 inches**
End of 5th week	**2.5 inches**

   Seventh week

5. **A.** 2.5 cm
   B. 2 cm
   C. 2.5 cm
   D. 2 cm
   Perimeter: 9 cm

6. **A.** 10,000 cm **C.** 15,000 cm **E.** 11 m
   B. 5 m **D.** 16,000 cm

7. **Common:** Both have right angles and rectangular faces.
   Different: One is a flat figure, the other is a solid figure; one has 6 faces and the other has only 1 face.

8. Answers will vary.

9. The correct change: \$10.00 – (\$4.20 + \$1.20 + \$.27) = \$4.33. Therefore, \$3.43 is not correct.

10. **A.** 4:30 or half past 4
    B. 9:30 or half past 9

11. **A.** b. 70
    B. b. 80

12. **A.** $\frac{2}{6}$ or $\frac{1}{3}$
    B. $\frac{2}{6}$ or $\frac{1}{3}$
    C. $\frac{1}{6}$
    D. $\frac{1}{6}$

Cycle 19

1. **A.** 11,944 1,214
   B. 36 6
   C. 49 7

2. 7.4 blocks. (Home → post office (2) → John's house (2) → Toy store (1) → middle (1) → home (1.4) or reverse the route.)

3. **A.** False
   B. True

4.

Days	Dog Food Consumed
Day 1	3 pounds
Day 2	6 pounds
Day 3	**9 pounds**
Day 4	**12 pounds**
Day 5	**15 pounds**

   $60 \div 3 = 20$ days

5. **A.** Area = 8 cm^2, Perimeter = 12 cm
   B. Area = 9 cm^2, Perimeter = 12 cm

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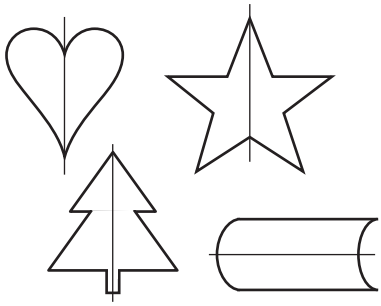
6 **A.** 2 tenths
B. 6 tenths
C. 8 tenths
D. 9 tenths

7 

8 Answers will vary.

9 **A.** $.21 + $.20 + $2.00 + $1.00 = $3.41
B. $.35 + $.15 + $.50 + $1.00 = $2.00

10 **A.** 7:15 or 15 minutes after 7
B. 4:30 or 30 minutes after 4

11 **A.** b. 3
B. b. 30

12 **A.** $\frac{2}{4}$ or $\frac{1}{2}$
B. $\frac{2}{4}$ or $\frac{1}{2}$
C. $\frac{2}{4}$ or $\frac{1}{2}$
D. $\frac{2}{4}$ or $\frac{1}{2}$

Cycle 20

1 **A.** 6,844 2,115
B. 64 8
C. 81 9

2 6.8 blocks (Home → post office (2) → John's house (2) → Bookstore (1.4) → home (1.4) or reverse the route.)

3 **A.** football
B. 13

4

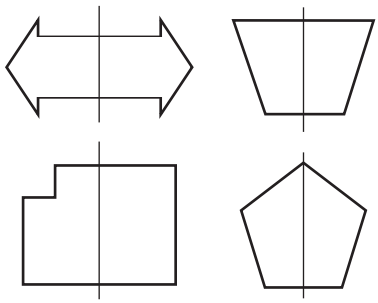
Days	Bear Food Consumed
Day 1	6 pounds
Day 2	12 pounds
Day 3	**18 pounds**
Day 4	**24 pounds**
Day 5	**30 pounds**

30 ÷ 6 = 5 days

5 **A.** Area = 4 cm^2
B. Area = 5 cm^2

6 **A.** 2 hundredths
B. 7 hundredths
C. 11 hundredths
D. 12 hundredths

7 Answers may vary but may include:



8 Answers will vary.

9 **A.** $.30 + $.10 + $.50 + $.75 = $1.65
B. $.24 + $.25 + $.20 +$.50 = $1.19

10 **A.** 1:45 or 15 minutes before 2
B. 7:45 or 15 minutes before 8

11 **A.** b. 30
B. b. 30

12 **A.** $\frac{3}{6}$ or $\frac{1}{2}$
B. $\frac{3}{6}$ or $\frac{1}{2}$
C. $\frac{3}{6}$ or $\frac{1}{2}$

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Answer Key: Cycles

Cycle 21

1. **A.** 12,834 1,483
   B. 70 21 91
   C. 4 40

2. **A.** Through Smithville and Cobb: 37 km
   B. Through Liberty: 28 km

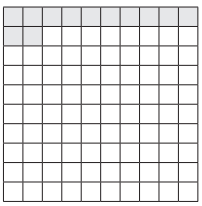
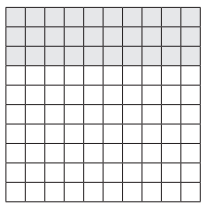
3. C

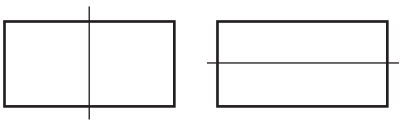
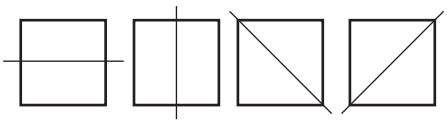
4. **A.**

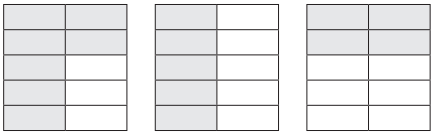
Driving hours	1	2	3	4	5
Distance traveled in miles	70	140	210	280	350

   B. 2 hours

5. **A.** 34 feet
   B. 60 meters

6. **A.**  **B.** 

7. Answers will vary but may include:
   A. 
   B. 

8. **A.** 
   B. $\frac{7}{10}$, $\frac{1}{2}$, $\frac{2}{5}$

9. **A.** $6 \times \$.25 = \$1.50$
   B. $6 \times \$.50 = \$3.00$

10. **A.** 2:05
    B. 7:20

11.

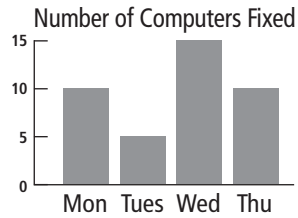
56	60
53	50
567	570
343	340

12. **A.** $\frac{1}{4}$
    B. $\frac{2}{4}$
    C. $\frac{1}{4}$

Cycle 22

1. **A.** 6,852 2,072
   B. 90 27 117
   C. 4 40

2. **A.** Through Boone and Roberts: 35 km
   B. Through Boone and Cobb: 36 km

3. 

4. **A.**

Driving hours	1	2	3	4	5
Distance traveled in miles	50	100	150	200	250

   B. 3 hours

5. **A.** 40 feet
   B. 54 meters

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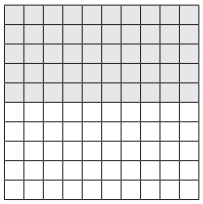
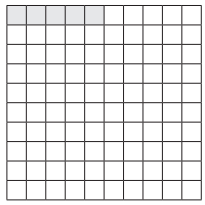
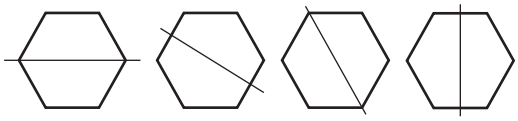
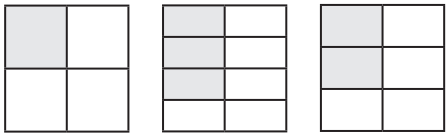
6 **A.**  **B.** 

7 Answers will vary but may include:

A.

B. 

8 **A.** 

B. $\frac{3}{8}$, $\frac{2}{6}$, $\frac{1}{4}$

9 **A.** $4 \times \$1.25 = \$5.00$

B. $3 \times \$2.10 = \$6.30$

10 **A.** 9:35

B. 7:25

11

256	300
243	200
567	600
343	300

12 **A.** a. $\frac{10}{20}$

B. b. $\frac{4}{20}$

Cycle 23

1 **A.** 10,724 1,291

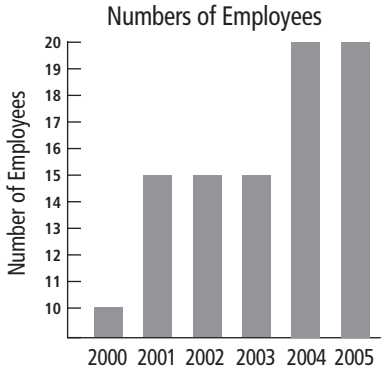
B. 120 18 138

C. 5 50

2 $6 \times 5 = 30$

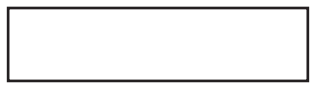
$30 \div 5 = 6$

$30 \div 6 = 5$

3 

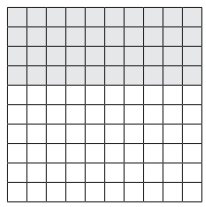
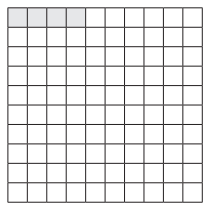
4 **A.** 0, 1, 4, 5

B. 0, 2, 4, 5

5 

A. area: 4 cm^2

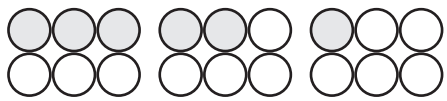
B. perimeter: 10 cm

6 **A.**  **B.** 

7 smiley face (4,7)

butterfly (5,4)

star (2,3)

8 **A.** 

B. $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{6}$

9 **A.** \$7.20

B. \$6.00

Answer Key: Cycles

10 **A.** 7:50

B. 4:05

11

546	550
533	530
67	70
43	40

12 The probability of your brother winning is 5 out of 8; the probability of you winning is 2 out of 8. The game is not fair because it favors your brother.

Cycle 24

1 **A.** 10,941 1,186

B. 250 10 260

C. 3 31

2 **A.** $7 \times 6 = K$
$K \div 6 = 7$
$K \div 7 = 6$

B. $M \times 16 = 32$
$32 \div 16 = M$
$32 \div M = 16$

3 **A.** Tuesday

B. Wednesday

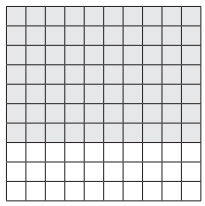
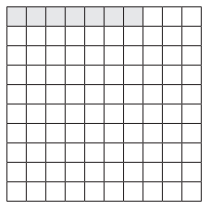
4 **A.** 10, 9, 8

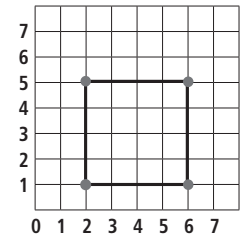
B. 10, 9, 8

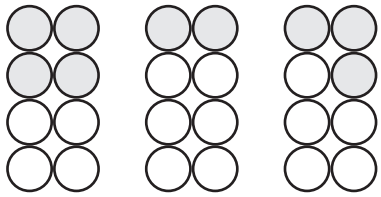
5

A. area: 6 cm^2

B. perimeter: 10 cm

6 **A.**  **B.** 

7 

8 **A.** 

B. $\frac{1}{2}, \frac{3}{8}, \frac{1}{4}$

9 **A.** 4 days

B. $15.00

10 **A.** 7:50

B. 4:05

11

566	**570**
563	**560**
567	**570**
3,443	**3,440**

12 The probability of your brother winning is 4 out of 8; the probability of you winning is 3 out of 8. The game is not fair because it favors your brother.

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Cycle 25

1 **A.** 10,513 5,217

B. 240 40 280

C. 6 62

2 **A.** c. 480 × 9.75 =

B. 20 × $9.00 = $180.00

3 **A.** 1999

B. 2002

4 **A.** 10, 9, 8

B. 0, 2, 4

5 Answers will vary but may fall in these ranges:

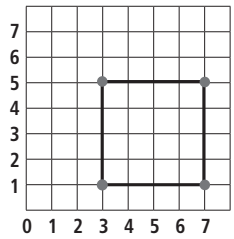
A. pencil: 5–20 grams

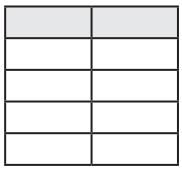
B. gallon of water: 3–4 kilograms

C. paper clip: 1–3 grams

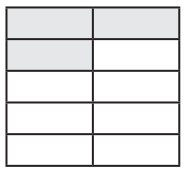
D. math book: 300 grams to 1.5 kilograms

6 823 = 8 × 100 plus
2 × 10 plus
3 × 1

7 

8 **A.** 

$\frac{2}{10} = 0.2$

B. 

$\frac{3}{10} = 0.3$

9 **A.** No. He has only $2.46.

B. a. about $5

10 0 hours and 20 minutes

11 Yes, Jane has enough money to buy the books ($5 + $4 + $4 + $5 = $18).

12 **A.** 30 out of 40, or $\frac{30}{40}$

B. 10 out of 40, or $\frac{10}{40}$

Cycle 26

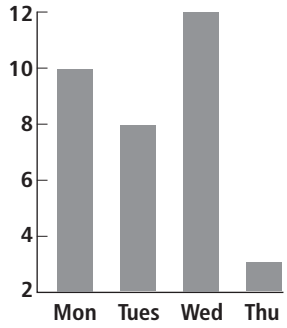
1 **A.** 10,635 2,328

B. 120 18 138

C. 8 84

2 **A.** c. 674 × 9.75 =

B. 15 × $9 = $135

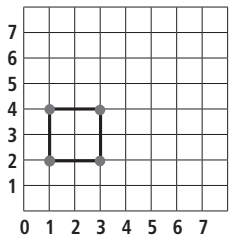
3 

4 **A.** 10, 9, 8

B. 0, 2, 4, 5

5 Answers will vary.

6 830 = 8 × 100 plus
3 × 10 plus
0 × 0

7 

missing point is (3,4)

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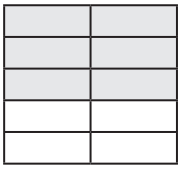
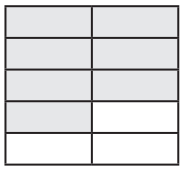
Answer Key: Cycles

8 **A.**



B.



C. $\frac{6}{10} < 0.7$

9 9 weeks.
$45 needed ÷ $5 saved a week = 9 weeks.

10 1 hour 5 minutes

11

Souvenir	Cost	Rounded to $1
Baseball cap	$10.50	**$11.00**
Foam "#1" hand	$9.30	**$9.00**
Baseball jersey	$21.80	**$22.00**
Poster	$5.60	**$6.00**

12 6 combinations:
white shirt + white skirt
white shirt + red skirt
white shirt + yellow skirt
red shirt + white skirt
red shirt + red skirt
red shirt + yellow skirt

Cycle 27

1 **A.** 13,144 1,511
B. 240 20 260
C. 6 62

2 **A.** d. 1,287 ÷ 8.25 =
B. 7 tickets

3

	Hours at Work
Frank	
Bob	
Suzy	

Each equals 3 hours.

4

4 + 5 (<) 10
20 – 5 (=) 15
4 × 5 (<) 30
3 × 5 (>) 12
5 ÷ 5 (<) 2
10 + 5 (>) 13
6 × 5 (<) 40

5 10 cm^3

6 Answers will vary.

7 **Alike:** Both have two acute angles.
Different: 3 vertexes vs. 4 vertexes; 1 right angle vs. two obtuse angles; 3 sides vs. 4 sides

8 **A.** $\frac{2}{4}$ or $\frac{1}{3}$
B. $\frac{4}{8}$ or $\frac{1}{2}$

9 crayon and marker OR notebook and card

10 1 hour and 20 minutes

11

Souvenir	Cost	Rounded to $10
Baseball cap	$16.50	**$20.00**
Foam "#1" hand	$7.70	**$10.00**
Baseball jersey	$26.40	**$30.00**
Poster	$5.60	**$10.00**

12 4 combinations:
white shirt + white skirt
white shirt + black skirt
black shirt + black skirt
black shirt + white skirt

Cycle 28

1 **A.** 6,790 2,090
B. 560 42 602
C. 9 92

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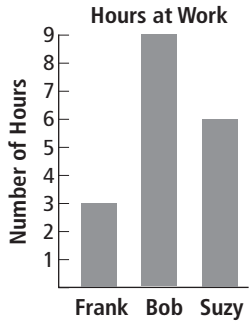
2 **A.** d.1,287 ÷ 8.25

B. 81 ÷ $9.00 = 9 tickets

3



4

2 × 5 (=) 10
20 – 15 (<) 6
2 × 5 (<) 12
2 × 6 (=) 12
10 ÷ 5 (>) 1
2 × 6 (<) 13
3 × 7 (>) 20

5 **A.** 16 cm^3

B. 12 cm^3

6 **A.** 20 dimes

B. 30 tens

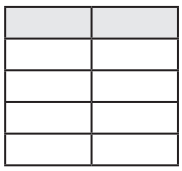
C. 50 tens

D. 60 tens

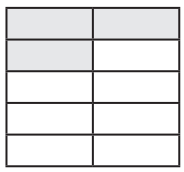
7 **A.** circle

B. rectangle

8 **A.**



B.



C. $\frac{2}{10} < 0.3$

9 crayon, notebook, poster, and card

10 2 hours and 5 minutes

11

Souvenir	Cost	Rounded to $1
Baseball cap	$10.20	**$10.00**
Foam "#1" hand	$9.80	**$10.00**
Baseball jersey	$21.20	**$21.00**
Poster	$5.80	**$6.00**

12 4 combinations:

red shirt + red pants

red shirt + blue pants

blue shirt + red pants

blue shirt + blue pants

Cycle 29

1 **A.** 11,496 1,483

B. 490 21 511

C. 8 82

2 **A.** c. 786 × 9.75 =

B. 21 × $5 = $105

3

Month	Temperature
Aug	80
Sep	70
Oct	70
Nov	55
Dec	45

4

Driving time (hours)	1	2	3	4
Driving distance (miles)	50	100	150	200

5 **A.** 12 cm^3

B. 12 cm^3

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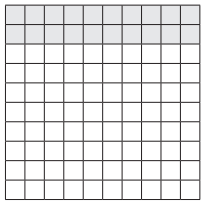
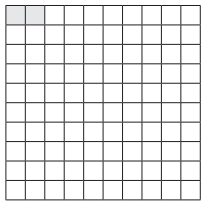
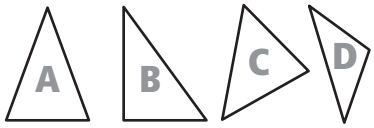
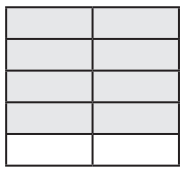
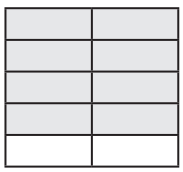
Answer Key: Cycles

6 **A.**  **B.** 

7 

8 **A.**  **B.** 

C. $\frac{8}{10} = 0.8$.

9 **A.** socks and shirts

B. shorts and a cap

10 0 hours and 45 minutes

11 **A.** a. 45 to 90

B. c. 60 to 100

12 **A.** 1

B. 3

C. 2

Cycle 30

1 **A.** 11,924 1,392

B. 400 24 424

C. 7 73

2 **A.** d. 800.25 ÷ 8.25

B. 49 ÷ 7 = 7 tickets

3 42° in November does not appear on the line graph.

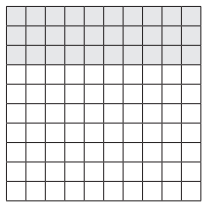
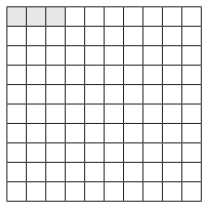
4 **A.**

Water height	10 in.	8 in.	6 in.	4 in.
Day	1	2	3	4

B. 6 days

5 **A.** 16 cm^3

B. 24 cm^3

6 **A.**  **B.** 

7 **A.** 16 cubes

B. 16 cubes

8 **A.**

B.

C. $\frac{3}{10} = 0.3$

9 **A.** shorts and belts

B. socks and dresses

10 0 hours and 40 minutes

11 **A.** c. $30 to $50

B. b. $50 to $70

12 **A.** 1

B. 3

C. 2

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Cycle 31

1. **A.** 92 38
   B. 6 3

2. **A.** Cathy
   B. Cathy

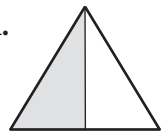
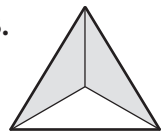
3. **A.** 600 eggs
   B. 100 eggs more

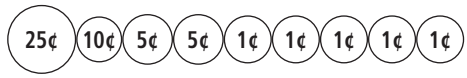
4. A B B A **B** B **A** **B**
   X X Y X **X** Y X **X** Y
   O X O O X **O** O **X**

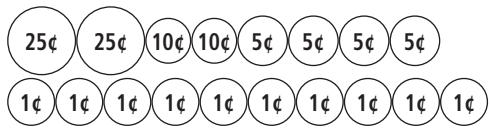
5. **A.** $2\frac{1}{4}$ inches
   B. $3\frac{3}{4}$ inches

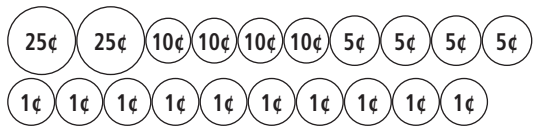
6. **A.** 5,432
   B. 3,245
   C. 4,325

7. Answers will vary and may include:
   Ohio Street & Main Street
   5th Avenue & 4th Avenue
   Main Street & Maple Street
   Maple Street & Willow Street

8. **A.** 
   B. 
   C. $\frac{1}{2} < \frac{2}{3}$

9. Answers will vary but may include:
   A. 

   B. 

   C. 

10. **A.** factors 5, 3; product 15
    B. factors 3, 2; product 6
    C. factors 2, 4; product 8
    D. factors 3, 4; product 12

11. **A.** a. 400
    B. c. 600

12. 4 different sundaes:
    chocolate and peanuts
    chocolate and cherry
    vanilla and peanuts
    vanilla and cherry

Cycle 32

1. **A.** 70 19
   B. 8 2

2. **A.** b. $(2 \times 6) \times 3$
   B. b. $(2 \times 6) \times 7$

3. **A.** Answers will vary but may include: What is your favorite season?
   B. Answers will vary but may include: Randomly select 10 students from each grade.

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Answer Key: Cycles

4 B A A B **A** A **B** **A**
Y X Y Y **X** Y **Y** **X** **Y**
X O O X **O** **O** X **O**

5 **A.** 2 inches
B. $3\frac{1}{2}$ inches

6 **A.** 6,542
B. 6,352
C. 5, 432

7 Answers will vary and may include:
4th Avenue & Main Street
4th Avenue & Ohio Street
5th Avenue & Maple Street
5th Avenue & Willow Street

8 **A.** **B.**
C. $\frac{1}{2} < \frac{2}{3}$

9 **A.** 25¢ 25¢ 25¢ 25¢
B. 25¢ 25¢ 10¢

10 **A.** factors 10, 3; product 30
B. factors 8, 2; product 16
C. factors 2, 5; product 10
D. factors 3, 4; product 12

11 **A.** a. 200
B. a. 100

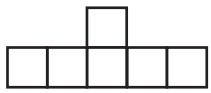
12 8 different sandwiches:
white bread + chicken + lettuce
white bread + chicken + tomato
white bread + beef + lettuce
white bread + beef + tomato
wheat bread + chicken + lettuce
wheat bread + chicken + tomato
wheat bread + beef + lettuce
wheat bread + beef + tomato

Cycle 33

1 **A.** 73 16
B. 18 5

2 100 × 1 = 100 minutes
100 – 60 = 40
So you would stand in line for about 1 hour and 40 minutes.

3 **A.** A = (1,2) and B = (4,2)
B. 3 units
C. C = (6,1) and D = (6,5)
D. 4 units

4 **A.** **Figure 5**


B. First, add a block to the bottom left side. Then add a block to the bottom right side, and so on.

5 **A.** 8 cups
B. 16 cups
C. 8 cups
D. 10 cups

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6 **A.** 4, 5, 7

B. 4, 2, 8

7 Answers will vary but may include:

A. Main Street & Maple Street

B. 5th Avenue & Main Street

8 **A.** $\frac{3}{6}$

B. $\frac{1}{2}$

C. $\frac{5}{10}$

D. They are equivalent fractions because all three fractions simplify to $\frac{1}{2}$.

9 **A.** 25¢ 10¢ 5¢

B. 25¢ 25¢ 25¢

C. 25¢ 25¢ 10¢ 10¢ 10¢

10 **A.** 3 and 4

B. 3 and 8 or 4 and 6

C. 3 and 10 or 5 and 6

11 **A.** a. 800

B. b. 800

12 8 different sandwiches:

white bread + chicken + lettuce
white bread + chicken + tomato
white bread + turkey + lettuce
white bread + turkey + tomato
rye bread + chicken + lettuce
rye bread + chicken + tomato
rye bread + turkey + lettuce
rye bread + turkey + tomato

Cycle 34

1 **A.** 84 5

B. 16 7

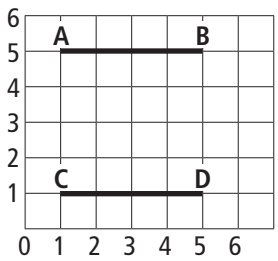
2 **A.** Michael

B. Ronnie

3 **A.** A = (1,5) and B = (5,5)

B. 4 units

C.



D. Answers will vary but may include: C = (1,1) and D = (5,1)

4 **A.** 6 squares

B Add a square to the bottom right. Then add a square to the top right, and so on.

5 **A.** 16 cups

B. 12 cups

C. 20 cups

6 **A.** 2, 1, 8

B. 5, 7, 9

7 Answers will vary but may include:

A. Ohio Street & Maple Street

B. 4th Avenue & Maple Street

C. 4th Avenue & Market Street

8 **A.** $\frac{6}{9}$

B. $\frac{2}{3}$

C. $\frac{10}{15}$

D. They are all equivalent fractions because all three simplify to $\frac{2}{3}$.

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Answer Key: Cycles

9 **A.**

B.

C.

10 **A.** 3 and 5

B. 3 and 4

C. 5 and 4

11 **A.** b. 600

B. b. 600

12 8 different cars:

red + gray
red + burgundy
silver + gray
silver + burgundy
black + gray
black + burgundy
green + gray
green + burgundy

Cycle 35

1 **A.** 792 149

B. 21 9

2 **A.** $12 \times 2 = 24$, $24 - 22 = 2$

Wanda needs 2 more eggs to fill both cartons.

B. $12 \times 4 = 48$, $48 - 45 = 3$

Wanda needs 3 more eggs to fill all four cartons.

3 **A.** Wanda

B. Wanda

4

Puppy's Age	Puppy's Weight
1 month	10 lbs
2 months	15 lbs
3 months	19 lbs
4 months	22 lbs
5 months	**24 lbs**

5 **A.** $9 \times 16 = 144$ cups

B. $2 \times 4 = 8$
$5 \times 2 = 10$
$8 + 10 = 18$ cups

6 **A.** 5.3 or $5\frac{3}{10}$

B. 4.15 or $4\frac{15}{100}$

C. 795.35 or $795\frac{35}{100}$

7 **A.** Both have two pairs of parallel sides and both have four sides.

B. One figure has four right angles and the other does not. All four sides in one figure are congruent, but in the other the two pairs of opposite sides are congruent.

8 **A.** Jim will have 4 pieces.

B. Jim will have 4 pieces.

9 **A.** $\$10.00 - \$7.55 = \$2.45$

B. $\$10.00 - \$4.75 = \$5.25$

10 **A.** 5 and 4

B. 10 and 3 or 5 and 6

C. 5 and 8 or 4 and 10

11 about 5 cm

12 4 combinations:

black pants + black shirt
black pants + blue shirt
white pants + black shirt
white pants + blue shirt

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Cycle 36

1. **A.** 792 36
   B. 24 7

2. **A.** 1,793 ÷ 300 = 5 R293, or about 6 days
   B. 1,793 – 849 = 944 more miles

3. **A.** Wanda spent 10 more minutes on homework than Ella did.
   B. They both spent the same range of time on homework.

4.

Puppy's Age	Puppy's Weight
1 month	15 lbs
2 months	20 lbs
3 months	25 lbs
4 months	**30 lbs**
5 months	**35 lbs**

5. **A.** 16 × 8 = 128 cups
   B. 10 × 2 = 20 cups

6. **A.** 5.4 or $5\frac{4}{10}$
   B. 4.32 or $4\frac{32}{100}$
   C. 795.63 or $795\frac{63}{100}$

7. **A.** Both figures have 4 sides and 4 angles.
   B. All 4 sides in one figure are congruent while only 2 sides are congruent in the other. One figure has two pairs of parallel sides while the other has only 1 pair of parallel sides.

8. **A.** 3 pieces
   B. 6 pieces

9. **A.** $5.00 – $3.55 = $1.45
   B. $10.00 – $2.75 = $7.25

10. **A.** 4 and 4
    B. 4 and 10 or 5 and 8
    C. 4 and 6 or 3 and 8

11. about 3 cm

12. 6 combinations:
    black pants + black shirt
    black pants + blue shirt
    red pants + black shirt
    red pants + blue shirt
    white pants + black shirt
    white pants + blue shirt

Cycle 37

1. **A.** 1,017 463
   B. 16 3

2. **A.** 88 ÷ 9 =9 R7; she will need 10 pages.
   B. 88 ÷ 10 = 8 R8; she will need 9 pages.
   C. 80 ÷ 5 = 16; she will need 16 pages.

3.

Name	Mode	Median	Range
Lakisha	50 min.	50 min.	60–40 min.
Dan	40 min.	40 min.	60–40 min.

4. **A.** 15
   B. 12
   C. 15
   D. 25
   E. 0

5. The temperature rose 8 degrees Celsius.

6. **A.** 124,065
   B. 360,075

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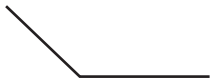
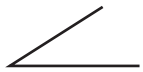
Answer Key: Cycles

7 **A.**

B.



C.



8

9 **A.** Ella needs 6 $1 bills.

B. Ella needs 12 $1 bills.

10 **A.** 12 pens

B. 15 pens

C. 36 pens

11 **A.** She needs 6 $1 bills.

B. Yes, it is enough to pay for the berries.

12 6 combinations:

white shirt + red hat
white shirt + black hat
pink shirt + red hat
pink shirt + black hat
black shirt + red hat
black shirt + black hat

Cycle 38

1 **A.** 1,041 460

B. 32 2

2 **A.** 42 ÷ 6 = 7 groups

B. Divide 52 by 6 to get 8 with 4 left over. You could either have 8 groups of 6 and 1 group of 4, or you could have 4 groups of 6 and 4 groups of 7.

3 **A.** Lakisha spent 10 more minutes on homework than Dan did.

B. Lakisha and Dan spent the same range of time on homework.

4 **A.** 29

B. 18

C. 45

D. 81

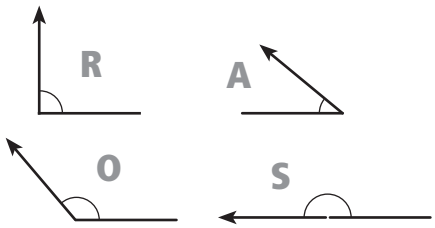
E. 0

5 The temperature rose 6 degrees Celsius.

6 **A.** 7,224,000

B. 12,360,000

7



8

9 **A.** She needs 6 $1 bills.

B. She needs 18 $1 bills.

10 **A.** 42 pens

B. 42 pens

C. 48 pens

11 **A.** She needs about 5 $1 bills.

B. Yes, it is enough to pay for the berries.

12 4 combinations:

yellow skirt + red shirt
yellow skirt + pink shirt
pink skirt + red shirt
pink skirt + pink shirt

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Cycle 39

1. **A.** 1,061 163
   B. 24 7

2. 2 packages of hot dogs and 3 packages of buns

3. **A.** 30 kg (40 + 30 + 20 = 90 ÷ 3 = 30)
   B. $11 ($10 + $12 = $22 ÷ 2 = $11)

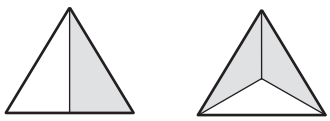
4. 192 chirps per minute

5. **A.** 85 degrees
   B. 107 degrees

6. **A.** It would increase by 40.
   B. It would increase by 300.
   C. It would decrease by 5.

7.

	A	B	C
Number of right angles	0	1	0
Number of acute angles	3	2	2
Number of obtuse angles	0	0	1
Name	acute triangle	right triangle	obtuse triangle

8. 
   $\frac{1}{2} < \frac{2}{3}$

9. Yes, the change is correct because:
   $5.00 – $2.80 = $2.20.

10. Answers will vary but may include:
    A. 3 has only 1 and itself as factors
    B. 5 has only 1 and itself as factors
    C. 7 has only 1 and itself as factors

11. **A.** $0.89 x 100 = $89.00
    B. about $50.00

12. **A.** certain
    B. more likely
    C. less likely

Cycle 40

1. **A.** 1,172 263
   B. 36 10

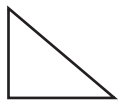
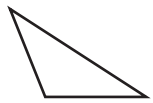
2. **A.** There were 2 substitutes.
   B. There were 2 substitutes.

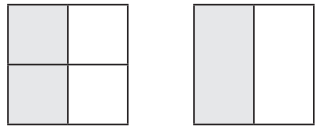
3. **A.** 1 m 30 cm (2 m 60 cm ÷ 2 = 1 m 30)
   B. 17 dolls (34 dolls ÷ 2 = 17 dolls)
   C. 40 kg (40 + 42 + 38 = 120 ÷ 3 = 40)

4. 200 chirps per minute

5. **A.** 86 degrees
   B. 97 degrees

6. **A.** It would increase by 60.
   B. It would increase by 400.
   C. It would decrease by 6.

7. **A.** 
   B.
   C. 

8. 
   $\frac{2}{4} = \frac{1}{2}$

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Answer Key: Cycles

9 No, the change is not correct because: $10 – $5.80 = $4.20, not $3.20.

10 Answers will vary but may include:

A. 11 has only 1 and itself as factors.

B. 13 has only 1 and itself as factors.

C. 17 has only 1 and itself as factors.

11 **A.** about $70

B. about $40

12 **A.** certain

B. less likely

C. more likely

Cycle 41

1 **A.** 1,061 163

B. 25 3

2 **A.** 8,400 ÷ 200 = 42 packages

B. 8,400 ÷ 400 = 21 packages

3 **A.** 30 minutes

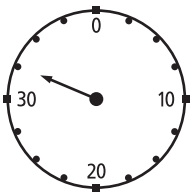
B. 30 minutes

4 **A.** total number = 5 × N

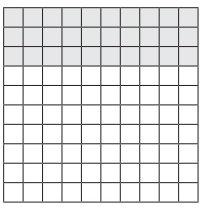
B. total number = 30 × T

5 **A.** 22.5 pounds

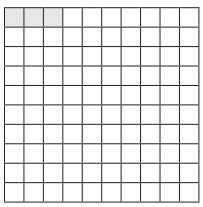
B.



6 **A.**



B.

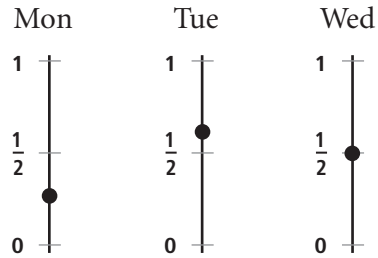


7 **A.** 2 (scalene)

B. 3 (isosceles)

C. 1 (equilateral)

8



The heaviest rainfall was on Tuesday.

9 $5 + $4 + $4 + $5 = $18. Yes, she has enough money to buy the books.

10 **A.** 1, 2, 4, 8

B. 1, 3, 9

C. 1, 2, 5, 10

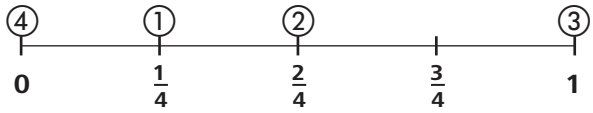
D. 1, 11

E. 1, 2, 3, 4, 6, 12

11 **A.** b. 60 minutes

B. b. 2 hours

12



Cycle 42

1 **A.** 950 63

B. 35 8

2 **A.** (5 × 12) + (10 × 6) = 120 crayons

B. 24 students can have 5 crayons

3 **A.** 40 minutes

B. 40 minutes

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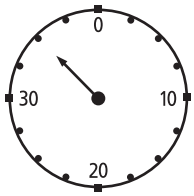
4 **A.** total number = N × 5

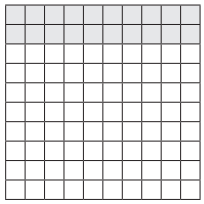
B. total number = T × 45

5 **A.** 32.5 pounds

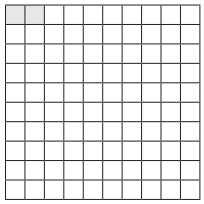
B.



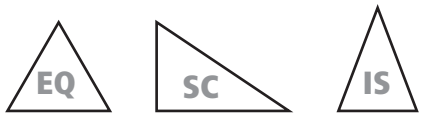
6 **A.**



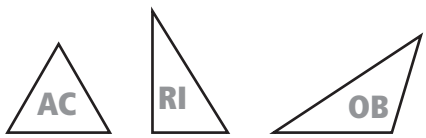
B.



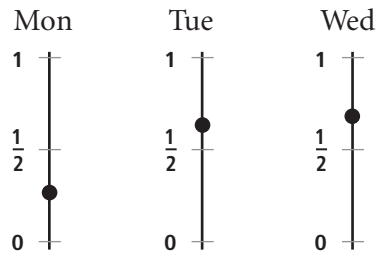
7 **A.**



B.



8



The heaviest rainfall was on Wednesday.

9 **A.** $13.00 + $24.00 + $5.00 = $42.00

B. $9.00 x 5 = $45.00

10 **A.** 1, 3

B. 1, 2, 4

C. 1, 5

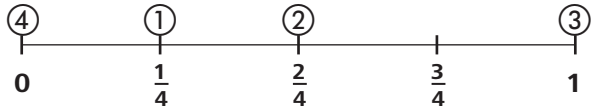
D. 1, 13

E. 1, 2, 7, 14

11 **A.** b. 1.5 hours

B. a. 30 minutes

12



Cycle 43

1 **A.** 839 363

B. 45 6

2 **A.** 1 hour 50 minutes

B. 2 hours 10 minutes

3 **A.** 20 minutes

B. The bar graph can show how far Jan walked each day while the line plot only shows how far she walked, not the specific days.

4 **A.** 10 squares

B. Add 2 squares for each new figure.

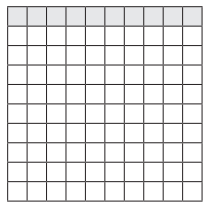
C. T = N × 2

5 Answers will vary but may include:

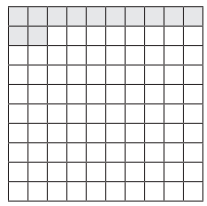
A. height of a person or depth of a pool

B. length of a football field or fabric

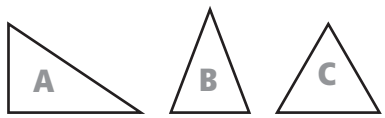
6 **A.**



B.



7



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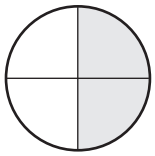
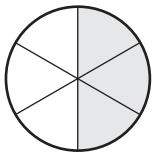
Answer Key: Cycles

8 **A.** fourths 

B. sixths 

C. $\frac{2}{4} = \frac{3}{6}$

9 **A.** $5.22

B. $8.70

10 **A.** 3, 6, 9, 12

B. 4, 8, 12, 16

C. 5, 10, 15, 20

D. 9, 18, 27, 36

E. 6, 12, 18, 24

11 **A.** 6

B. 10

C. 16

D. 20

E. 22

12 **A.** 1 out of 6 or $\frac{1}{6}$

B. 2 out of 6 or $\frac{2}{6}$

Cycle 44

1 **A.** 728 163

B. 20 10

2 **A.** 2 hours 50 minutes

B. 1 hour 30 minutes

3 **A.** 15 minutes

B. The bar graph can tell how far Jan walked each day while the line plot only tells how far she walked, not the specific days.

4 **A.** 12 squares

B. Add 3 squares

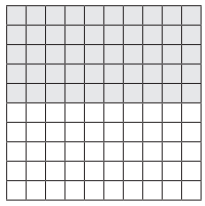
C. T = N × 3

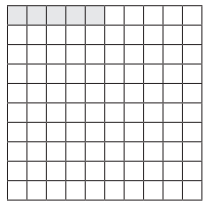
5 Answers will vary but may include:

A. 4 feet 6 inches

B. 5 feet 6 inches

C. 3.5 yards

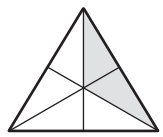
6 **A.** 

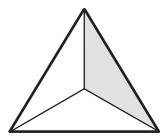
B. 

7 **A.** right, scalene

B. acute, equilateral

C. obtuse, isosceles

8 **A.** sixths 

B. thirds 

C. $\frac{2}{6} = \frac{1}{3}$

9 **A.** $6.96

B. $10.44

10 **A.** 7, 14, 21, 28

B. 8, 16, 24, 32

C. 10, 20, 30, 40

D. 11, 22, 33, 44

E. 12, 24, 36, 48

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11 **A.** 9

B. 15

C. 24

D. 30

E. 33

12 **A.** 1 out of 6 or $\frac{1}{6}$

B. 3 out of 6 or $\frac{3}{6}$

Cycle 45

1 **A.** 8,344 5,511

B. 240 7

2 (1) is the most profitable ($20 \times \$4 = \$80$).

3 **A.** Answers will vary but may include:
8, 9, 10, 11, 12; 5, 8, 10, 13, 14, and so on.

B Answers will vary but may include:
7, 7, 7, 7, 7; 9, 8, 4, 7, 6, and so on.

4 **A.**

In	3	5	10	15	7
Out	6	10	20	**30**	**14**

B. Multiply the "In" row by 2.

C. N × 2

5 Area = 6 cm^2; Perimeter = 10 cm

6 **A.** 4.3, 4.03, 4.003

B. 40.13, 40.103, 40.013

C. 14.135, 14.043, 14.023

7 Answers will vary but may include:
(2,1); (6,1); (6,5)

8 **A.** $1\frac{3}{4}$ inches

B. 2 inches

C. $\frac{3}{4}$ inches

9 Mario bought a poster, a crayon, and a card.

10 **A.** 25

B. 24

C. 14

11 **A.** b. 90

B. b. 60

12 **A.** 1 out of 3 or $\frac{1}{3}$

B. 2 out of 3 or $\frac{2}{3}$

Cycle 46

1 **A.** 10,244 2,511

B. 305 4

2 Answers will vary but may include:

1. Use 10 1-pound containers.
2. Use 5 2-pound containers.
3. Use 4 1-pound containers and 3 2-pound containers.

3 **A.** Answers will vary but may include:
3, 4, 5, 6, 8; 1, 4, 5, 8, 30; and so on.

B. Answers will vary but may include:
20, 10, 30, 10, 30; 40, 30, 20, 10; and so on.

4 **A.**

In	4	5	10	15	7
Out	12	15	30	**45**	**21**

B. Multiply the "In" row by 3.

C. N × 3

Answer Key: Cycles

5 **A.** Each is 1 cm long.

B. The line segment is about 1 cm long, and the square has a bigger area, 1 cm^2.

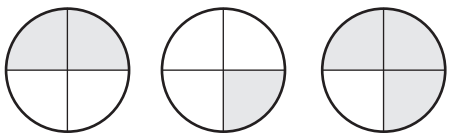
6 **A.** 51.003, 50.3, 50.03

B. 40.131, 40,103, 40.001

C. 14.105, 14.103, 14.003

7 Answers will vary but may include: (7,3), (2,3), (7,5)

8 Sue is not correct. The answer should be:



$\frac{2}{4} + \frac{1}{4} = \frac{3}{4}$

9 He bought a card, a notebook, a marker, and a poster.

10 **A.** 125

B. 126

C. 28

11 **A.** b. 70

B. b. 80

12 **A.** $\frac{1}{4}$

B. $\frac{1}{4}$

C. $\frac{1}{4}$

D. $\frac{1}{4}$

Cycle 47

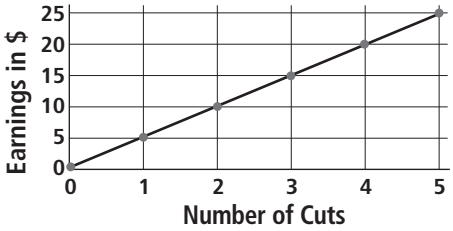
1 **A.** 10 35

B. 504 8

2 about 495 miles per hour faster

3

Number of cuts	0	1	2	3	4	5
Earnings in $	0	$5	$10	**$15**	**$20**	**$25**



4 **A.** 4 × S or 4S

B. 4 × T or 4T

C. 4 × R or 4R

D. 3 × R o 3R

E. 2 × R or 2R

5 **A.** Area = 7 cm^2; Perimeter = 12 cm

B. Area = 7 cm^2; Perimeter = 14 cm

6 **A.** 27.35 seconds

B. 27.33 seconds

C. 27.32 seconds

7

	A	**B**
Number of faces	6	5
Name of the faces/shapes	rectangle	triangle
Number of edges	12	8
Number of vertexes	8	5
Name of the figure	rectangular prism	square pyramid

8 $\frac{1}{4}$

9 **A.** $1.22

B. $1.72

C. $1.54

10 **A.** 2

B. 5

C. 5

D. 3

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11 **A.** b. 90

B. b. 60

12 **A.** $\frac{1}{2}$

B. $\frac{1}{2}$

C. $\frac{1}{2}$

D. $\frac{1}{2}$

Cycle 48

1 **A.** 200 200

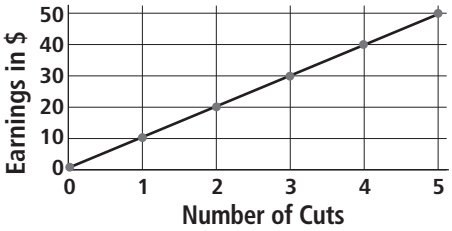
B. 648 9

2 **A.** 30 ÷ 5 = 6; 24 × 6 = 144 liters

B. 60 ÷ 5 = 12; 24 × 12 = 288 liters

3

Number of cuts	0	1	2	3	4	5
Earnings in $	0	$10	$20	**$30**	**$40**	**$50**



4 **A.** R + R + R

B. R + R + R + R

C. S + S

D. M + M + M

E. B + B + B + B

5 **A.** Area = 5 cm^2; Perimeter = 12 cm

B. Area = 6 cm^2; Perimeter = 12 cm

6 **A.** 28.36 seconds

B. 43.11 seconds

C. 27.44 seconds

7 **Common:** Both are solid figures and both have square bases.

Different: One has a rectangular face and the other has a triangular face; one has 12 edges and the other has 8; one has 6 faces and the other has 5.

8 **A.** $\frac{2}{4}$

B. $\frac{1}{4}$

C. $\frac{1}{3}$

9 **A.** $.97

B. $2.12

C. $2.14

10 **A.** 7

B. 5

C. 2

D. 17

11 **A.** b. 70

B. b. 80

12 **A.** $\frac{2}{6}$ or $\frac{1}{3}$

B. $\frac{2}{6}$ or $\frac{1}{3}$

C. $\frac{1}{6}$

D. $\frac{1}{6}$

Cycle 49

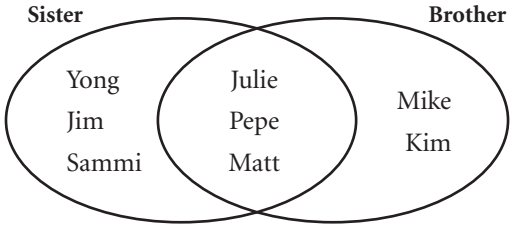
1 **A.** 600

B. 252 4

2 **A.** 20 × 60 = 1,200 miles per minute

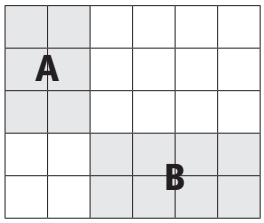
B. 1,200 × 60 = 72,000 miles per hour

Answer Key: Cycles

3 

4 **A.** $15 + ($5 × W)

B. $20 + ($5 × W)

5 

6 **A.** 60,000,000

B. 5,200,000

C. 2,400,000

7

	A	B
Number of faces	4	5
Name of the faces/shapes	triangle	triangle
Number of edges	6	8
Number of vertexes	4	5
Name of the figure	triangular pyramid	square pyramid

8 **A.** $3\frac{3}{4}$

B. $\frac{1}{4}$

C. $\frac{6}{8}$ or $\frac{3}{4}$

D. $\frac{1}{6}$

9 **A.** $2.47

B. $1.97

C. $2.04

10 **A.** 5

B. 2

C. 2

D. 2, 3

11 **A.** b. 3

B. b. 30

12 **A.** $\frac{2}{4}$ or $\frac{1}{2}$

B. $\frac{2}{4}$ or $\frac{1}{2}$

C. $\frac{2}{4}$ or $\frac{1}{2}$

D. $\frac{2}{4}$ or $\frac{1}{2}$

Cycle 50

1 **A.** 150

B. 342 9

2 100 ÷ 34 = approximately 3 cups of kernels

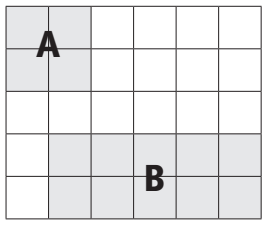
3 **A.** 3 students

B. 10 students

C. 9 students

4 **A.** $7 + (3 × N)

B. $10 + ($5 × N)

5 

6 **A.** 9,000,000

B. 90,200,000

C. 9,460,000

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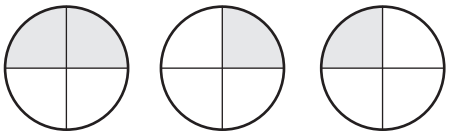
7 **Common:** They both have triangular faces and they both have one base.

Different: The first figure has 3 faces while the second figure has 4 faces. They have different-shaped bases: the first figure's base is a triangle while the second figure's base is a square.

8 Sue's answer is not correct. The answer is $\frac{1}{4}$.



$\frac{2}{4} - \frac{1}{4} = \frac{1}{4}$

9 **A.** $2.02

B. $1.47

C. $1.74

10 **A.** 2

B. 2

C. 2

D. 7

11 **A.** b. 30

B. b. 30

12 **A.** $\frac{3}{6}$ or $\frac{1}{2}$

B. $\frac{3}{6}$ or $\frac{1}{2}$

C. $\frac{3}{6}$ or $\frac{1}{2}$

Cycle 51

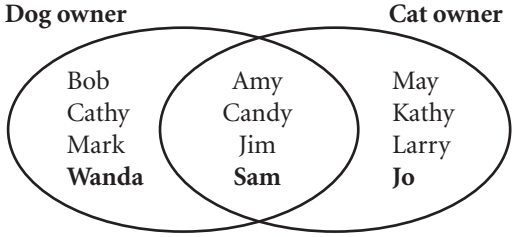
1 **A.** 385

B. 4900 8

2 **A.** Ella and her sister should each get $.50 of the remainder, or $5.50 total.

B. Each person should get $12.50. (The remainder of 1 is to be split in half.)

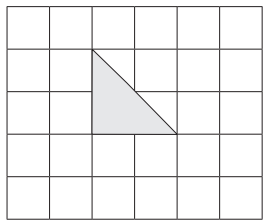
3 **Dog owner** **Cat owner**



4 **A.**

Column A	Column B
6	12
7	14
20	**40**
25	**50**

B. The numbers in B = A × 2.

5 

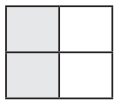
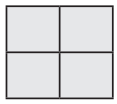
6 251, 521, 512

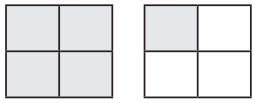
7 **A.** line segment

B. line

C. ray

D. point

8 **A.**  **B.** 

C. 

9 **A.** $0.95 + $1.20 + $0.85 = $3.00
$3.00 × 5 = $15.00
He needs $15.00 to buy his lunch for 5 days.

B. $3.00 × 10 = $30.00
He needs $30.00 to buy his lunch for 10 days.

Answer Key: Cycles

10 **A.** 5×78
$= (5 \times 80) - (5 \times 2)$
$= 400 - 10$
$= 390$

B. 7×39
$= (7 \times 40) - (7 \times 1)$
$= 280 - 7$
$= 273$

11

56	**60**
53	**50**
567	**570**
343	**340**

12 **A.** $\frac{1}{4}$

B. $\frac{1}{2}$

C. $\frac{1}{4}$

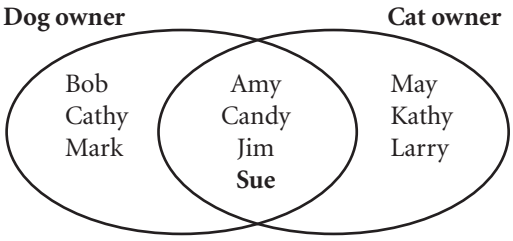
Cycle 52

1 **A.** 332

B. 1,440 3

2 She could add the 2 remaining students to 2 groups so that there are 3 teams with 4 students and 2 teams with 5 students, or she could have the 2 remaining students be alternates.

3 **A.**



B. You would put Charles's name outside of the circles.

4 **A.**

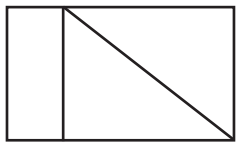
Column A	Column B
3	9
4	12
10	**30**
12	**36**

B. The numbers in B = A × 3.

5 Figure A = 5 cm^2
Figure B = 3 cm^2

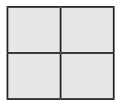
6 285, 528, 582, 825, and 852 all work

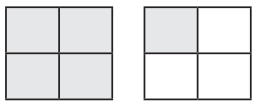
7



8 Answers will vary but many include:

A. $\frac{1}{4}$

B. $\frac{4}{4}$ 

C. $\frac{5}{4}$ 

9 **A.** $1.05 + $1.20 + $0.95 = $3.20
$3.20 × 3 = $9.60
He needs $9.60 to buy his lunch for 3 days.

B. $3.20 × 5 = $16.00
He needs $16.00 to buy his lunch for 5 days.

10 **A.** 8×48
$= (8 \times 50) - (8 \times 2)$
$= 400 - 16$
$= 384$

B. 9×39
$= (9 \times 40) - (9 \times 1)$
$= 360 - 9$
$= 351$

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11

256	**300**
243	**200**
567	**600**
343	**300**

12 **A.** a. $\frac{10}{20}$

B. b. $\frac{4}{20}$

Cycle 53

1 25×14
$= 25 \times (10 + 4)$
$= (25 \times 10) + (25 \times 4)$
$= 250 + 100$
$= 350$

2 2 packages of hot dogs, 2 packages of buns, and 2 packages of drinks

3 **A.** 20 students

B. 80

C. 80

4 **A.** 36 inches

B. 10 inches

C. 14.5 inches

5 **A.** 9 inches

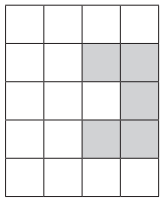
B. 5 inches

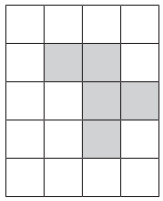
C. 10 inches

6 **A.** 736

B. 2,736

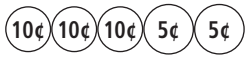
C. 4,736

7 **A.** 

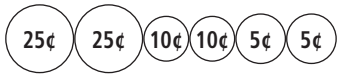
B. 

8 **A.** $3 \times 1\frac{1}{3} = 4$

B. $2 \times 1\frac{1}{3} = 2\frac{2}{3}$

9 **A.** 

B.

C. 

10 **A.** 5×22
$= (5 \times 20) + (5 \times 2)$
$= 100 + 10$
$= 110$

B. 5×45
$= (5 \times 40) + (5 \times 5)$
$= 200 + 25$
$= 225$

11

546	**550**
533	**530**
67	**70**
43	**40**

12 The game is not fair because your brother has 5 chances to win (1, 2, 3, 4, or 5), and you only have 2 chances to win (7 or 8).

Answer Key: Cycles

Cycle 54

1. **A.** $28 \times (10 + 2)$
$= (28 \times 10) + (28 \times 2)$
$= 280 + 56$
$= 336$

   B. 9

2. You need to buy 4 packages of hot dogs, 3 packages of buns, and 3 packages of drinks.

3.

	Ashley's class	Angie's class
Mode	80	90
Median	80	80
Range	100 – 50 = 50	100 – 50 = 50

4. **A.** 43 inches

   B. 17 inches

   C. 17.5 inches

5. **A.** cover: 25 ft^2

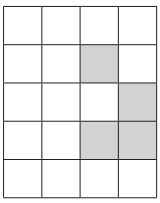
   B. panels: 20 feet

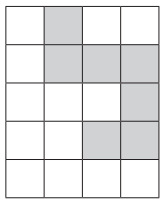
   C. sand: 400 pounds

6. **A.** 825

   B. 1,825

   C. 4,336

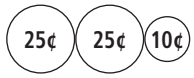
7. **A.** 

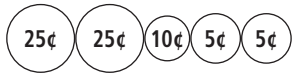
   B. 

8. **A.** $2 \times 1\frac{1}{2} = 3$ cups

   B. $4 \times 1\frac{1}{2} = 6$ cups

9. **A.**

   B. 

   C. 

10. **A.** 4×48
$= (4 \times 50) - (4 \times 2)$
$= 200 - 8$
$= 192$

    B. 6×39
$= (6 \times 40) - (6 \times 1)$
$= 240 - 6$
$= 234$

11.

566	**600**
563	**600**
567	**600**
3,443	**3,400**

12. The game is not fair because your brother has 4 chances to win (1, 2, 3, or 4) while you only have 3 chances to win (6, 7, or 8).

Cycle 55

1. **A.** $25 \times (10 + 5)$
$= (25 \times 10) + (25 \times 5)$
$= 250 + 125$
$= 375$

   B. 7

2. **A.** 1. 20 of the 2-pound bags
   2. 10 of the 4-pound bags
   3. 6 of the 2-pound bags and 7 of the 4-pound bags

   B. 20 2-pound bags = $80

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3

	X	
	X	
X	X	
X	X	
X	X	
X	X	X
X	X	X
30 kg	40 kg	50 kg

4

Number of hours	1	2	3	4	5
Money earned	$3.00	**$6.00**	**$9.00**	**$12.00**	**$15.00**

T = (N) × $3.00

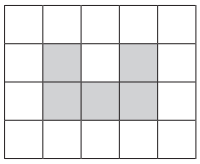
5 **A.** Perimeter = 30 feet
Area = 54 square feet

B. Perimeter = 30 feet
Area = 50 square feet

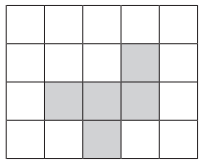
6 **A.** 54,650 = 50,000 + 4,000 + 600 + 50

B 64,300 = 60,000 + 4,000 + 300

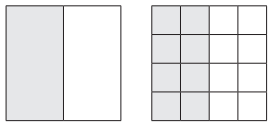
7 **A.**



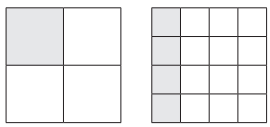
B.



8 **A.** $\frac{1}{2} = \frac{8}{16}$



B. $\frac{1}{4} = \frac{4}{16}$



9 He bought a poster and a marker.

10 **A.** 23 × 5
= (20 × 5) + (3 × 5)
= 100 + 15
= 115

B. 16 × 2
= (10 × 2) + (6 × 2)
= 20 + 12
= 32

11

Souvenir	Cost	Rounded to $10
Baseball cap	$10.50	**$10.00**
Foam "#1" hand	$9.30	**$10.00**
Baseball jersey	$21	**$20.00**
Poster	$5.60	**$10.00**

12 **A.** $\frac{30}{40}$

B. $\frac{10}{40}$

Cycle 56

1 **A.** 25 × (40 + 2)
=(25 × 40) + (25 × 2)
=1,000 + 50
=1,050

B. 4

2 a. The number of apple pies sold

3

	X			
	X			
	X			
	X			
X	X	X		
X	X	X		
X	X	X	X	
1.3 m	1.4 m	1.5 m	1.6 m	

4

Number of hours	1	2	3	4	5
Money earned	$3.50	**$7.00**	**$10.50**	**$14.00**	**$17.50**

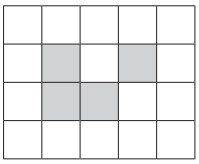
T = N × $3.50

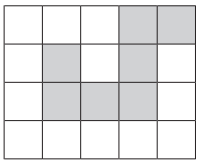
Answer Key: Cycles

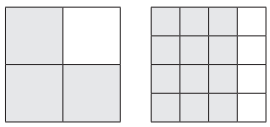
5 $6 + 7 + 7 = 20$
$20 \div 4 = 5$.
Each side of the square is equal to 5.

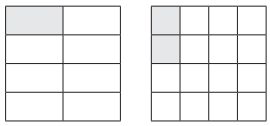
6 **A.** 54,650,000 =
50,000,000 + 4,000,000 + 600,000 + 50,000

B. 64,300,000 =
60,000,000 + 4,000,000+ 300,000

7 **A.** 

B. 

8 **A.** $\frac{3}{4} = \frac{12}{16}$ 

B. $\frac{1}{8} = \frac{2}{16}$ 

9 He bought a crayon, card, and marker.

10 **A.** 29×5
$= (5 \times 30) - (5 \times 1)$
$= 150 - 5$
$= 145$

B. 19×8
$= (8 \times 20) - (8 \times 1)$
$= 160 - 8$
$= 152$

11

Souvenir	Cost	Rounded to $1
Baseball cap	$10.50	**$11.00**
Foam "#1" hand	$9.30	**$9.00**
Baseball jersey	$21.80	**$22.00**
Poster	$5.60	**$6.00**

12 2 gumballs; There are 20 red gumballs out of 100 ($\frac{20}{100}$). Susan got 10 gumballs, so 2 of them are probably red ($\frac{2}{10}$), because $\frac{20}{100} = \frac{2}{10}$.

Cycle 57

1 **A.** $25 \times (10 + 8)$
$= (25 \times 10) + (25 \times 8)$
$= 250 + 200$
$= 450$

B. 8

2 c. the number of seats in the auditorium

3

Range of Data	Mode Length	Median Length
31 – 25 = 6 cm	29 cm	28 cm

4 **A.**

Days	1	2	3	4	5	6	7
Miles	3	6	9	12	15	18	21

B. $T = N \times 3$

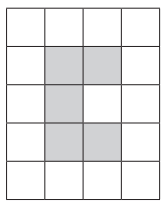
5 **A.** 2 cm^2

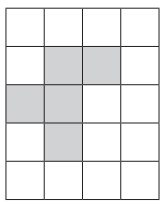
B. 3 cm^2

C. 4 cm^2

6 **A.** greatest: 8,652; least: 2,568

B. greatest: 541; least: 145

7 **A.** 

B. 

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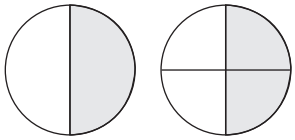
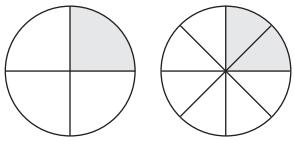
8 **A.** $\frac{1}{2} = \frac{2}{4}$



B. $\frac{1}{4} = \frac{2}{8}$



9 **A.** $1.91

B. $2.32

C. $1.79

10 Prime numbers: 7, 11

Composite numbers: 8, 9, 10, 15, 20, 100

Neither prime nor composite: 0, 1

11

Souvenir	Cost	Rounded to $10
Baseball cap	$16.50	**$20.00**
Foam "#1" hand	$7.70	**$10.00**
Baseball jersey	$26.40	**$30.00**
Poster	$5.60	**$10.00**

12 4 combinations:

white shirt + white skirt

white shirt + black skirt

black shirt + white skirt

black shirt + black skirt

Cycle 58

1 **A.** $25 \times (30 + 8)$
$= (25 \times 30) + (25 \times 8)$
$= 750 + 200$
$= 950$

B. 9

2 **A.** 1. 10 bags of 4 pounds each
2. 8 bags of 5 pounds each
3. 5 bags of 4 pounds each and 4 bags of 5 pounds each

B. All ways bring in the same amount of money, $20.

3

Range of Score	Mode Score	Median Score
100 – 50 = 50	80	80

4 **A.**

Days	1	2	3	4	5	6	7
Minutes	20	40	60	80	100	120	140

B. $T = N \times 20$

5 **A.** 3 cm^2

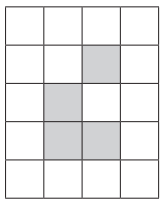
B. 4 cm^2

C. 5 cm^2

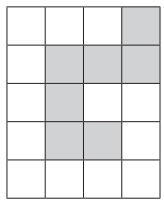
6 **A.** greatest: 8,520; least: 2,058

B. greatest: 6,541; least: 1,456

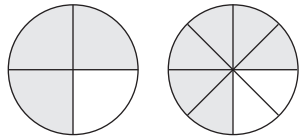
7 **A.**



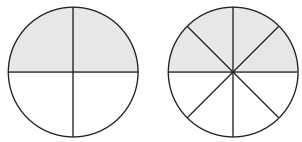
B.



8 **A.** $\frac{3}{4} = \frac{6}{8}$



B. $\frac{2}{4} = \frac{4}{8}$



9 **A.** $1.72

B. $2.22

C. $2.04

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Answer Key: Cycles

10 **A.** 2, 3, 5, 7, and 11

B. 4, 6, 8, 9, and 10

11

Souvenir	Cost	Rounded to $10
Baseball cap	$10.20	**$10.00**
Foam "#1" hand	$9.80	**$10.00**
Baseball jersey	$21.20	**$20.00**
Poster	$5.80	**$10.00**

12 2 combinations:

red shirt + red pants

blue shirt + blue pants

Cycle 59

1 **A.** b. 35×22

B. c. $53 \times (10 + 7)$

C. 4

2 Sugar: 10 cups
Lemonade: 5 cans
Water: 5 quarts

3

Range of Weights in kg	Mode Weight in kg	Median Weight in kg
50 – 30 = 20	40	40

4 **A.**

Hours of rain	0	1	2	3	4
Depth of the pond	2.00 m	2.12	2.24	**2.36**	**2.48**

B. D = 2m + (H × .12m)

5 8 cubes

6

Fraction	Decimal	Reading
$\frac{85}{100}$	0.85	85 hundredths
$\frac{5}{10}$	0.5	5 tenths
$\frac{7}{10}$	0.7	7 tenths
$\frac{14}{100}$	0.14	14 hundredths

7 **Common:** Both have a circular base and both are three-dimensional.

Different: One has 2 circular bases and the other has only 1 circular base.

8 **A.** The pitcher is not big enough to hold all of the orange juice.

B. $\frac{3}{4} + \frac{2}{4} = \frac{5}{4}$

9 **A.** $0.95 + $1.55 + $0.80 = $3.30
$3.30 × 3 = $9.90
She needs $9.90 to buy her lunch for 3 days.

B. $3.30 × 5 = $16.50
She needs $16.50 to buy her lunch for 5 days.

10 **A.** Prime: 23
Composite: 20, 21, 22, 24, 25, 26, 27

B. Prime: 31, 37
Composite: 30, 32, 34, 35, 36, 38

11 $5 + $4 + $4 + $5 = $18

Yes, she has enough money to buy the books.

12 **A.** 1

B. 3

C. 2

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Cycle 60

1. **A.** b. 35×56

   B. c. $73 \times (10 + 7)$

   C. 91

2. Sugar: 12 cups
   Lemonade: 6 cans
   Water: 6 quarts

3.

Range of Heights in m	Mode Height in m	Median Height in m
1.6 – 1.3 = 0.3 m	1.5	1.5

4. **A.**

Hours of rain	0	1	2	3	4
Depth of the pond	4.00 m	4.25	4.50	**4.75**	**5.00**

   B. D = 4m + H × .25m

5. 120 small cubes

6.

Fraction	Decimal	Reading
$\frac{85}{100}$	0.85	85 hundredths
$\frac{5}{100}$	0.05	5 hundredths
$\frac{15}{100}$	0.15	15 hundredths
$\frac{4}{10}$	0.4	4 tenths

7. **Common:** Both are three-dimensional figures.

   Different: One has rectangular faces and the other has a circular face. Also, the shape of the edges is different.

8. **A.** The pitcher is not big enough to hold all of the orange juice.

   B. $\frac{5}{8} + \frac{7}{8} = \frac{12}{8} = 1\frac{4}{8}$

9. **A.** \$0.95 + \$1.25 + \$0.80 = \$3.00
   \$3.00 × 5 = \$15.00
   She needs \$15.00 to buy her lunch for 5 days.

   B. \$3.00 × 10 = \$30.00
   She needs \$30.00 to buy her lunch for 10 days.

10. **A.** 23

    B. 29

    C. 13

    D. 31

    E. 37

    F. 7

11. 30 + 30 + 30 + 30 = 120 students
    Yes they could get into the museum for half price.

12. **A.** 1

    B. 3

    C. 2

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Progression Chart: Cycles

Name _____

Clusters	Cycle Numbers														
1 Addition															
Subtraction															
Multiplication															
Division															
2 Problem solving															
3 Data and Graphs															
4 Patterns and Functions															
5 Measurement															
6 Place Value															
7 Geometry															
8 Fraction															
9 Money															
10 Time/Properties of Number Operations															
11 Estimation															
12 Probability															

Legend: X: correct answer Δ: half correct ∅: incorrect ☒: no answer

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Quiz 1

1. 160 60

2. 9 – 6 = 3 apples

3. 41 years old

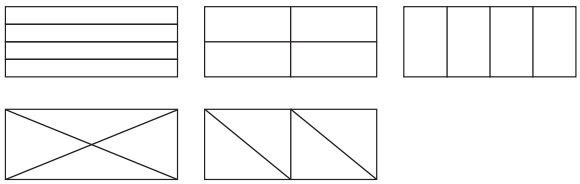
4. ΔOOΔOOΔOOΔOO Δ O

5.

6. Answers will vary and might include:
   30 + 2; 31 + 1, 40 – 8; 41 – 9, 42 – 10

7. **Common:** Both have 4 sides and 4 angles.
   Different: A has one pair of parallel lines while B has two pairs.

8. Answers will vary and might include:



9. 63¢

10. 15 days

11. a. 100

12. 4 different sundaes:
    chocolate-peanuts; chocolate-cherry;
    vanilla-peanuts; vanilla-cherry

Quiz 2

1. 143 240

2. 6 apples

3. 29 years old

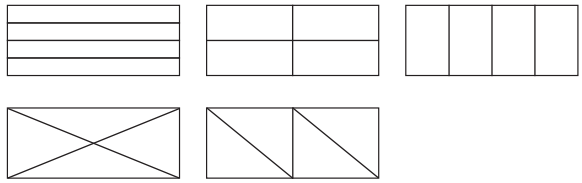
4. 5 7 9 11 **13** **15** **17**

5.

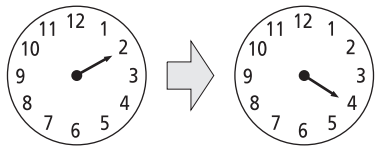
6. Answers will vary and might include:
   50 + 2, 51 + 1, 60 – 8, 70 – 18

7. **Common:** Both are plane shapes/polygons.
   Different: They have different numbers of sides (5 vs. 3) and numbers of angles (5 vs. 3).

8. Answers will vary and might include:



9. 28¢

10. 

11. b. 600

12. 6 combinations:
    red + gray; red + burgundy
    silver + gray; silver + burgundy
    black + gray; black + burgundy

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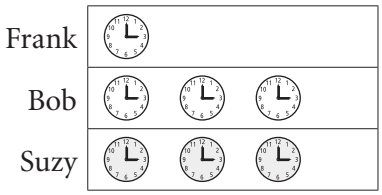
Answer Key: Quizzes

Quiz 3

1. 1,440 250

2. 3 apples

3. **Hours at Work**

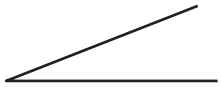


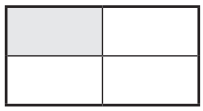
Each 🕒 equals 3 hours.

4. ♦ ♦ ❤ ❤ ♦ ♦ ❤ ❤ ♦ ♦ ❤ ❤

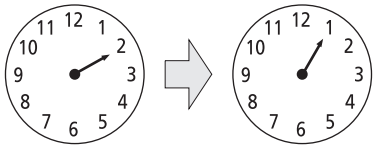
5.

6. 144 inches

7. 

8. 

9. $5.75

10. 

11. b. 800

12. You can make 6 turkey sandwiches with these combination toppings:

    lettuce + tomato
    lettuce + onion
    lettuce + pickles
    tomato + onion
    tomato + pickles
    onion + pickles

Quiz 4

1. 792 36
   10 30 14 40

2. 5 × 9 = 45 apples

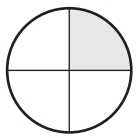
3. 100 cups

4. 50 55 60 **65** **70** **75**

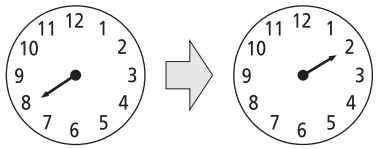
5. Answers will vary but may include a baseball bat.

6. Answers will vary but may include:
   1 + 2 + 17 = 20
   10 + 2 + 8 = 20

7. **Common:** Both have 3 sides and 3 angles.
   Different: One has an obtuse angle and the other has a right angle.

8. 

9. Bill has 7¢ more.

10. 

11. $5.00

12. There are 4 possible combinations:
    black pants + white shirt
    black pants + blue shirt
    white pants + white shirt
    white pants + blue shirt

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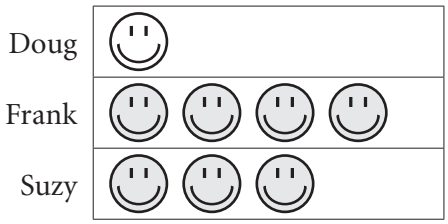
Quiz 5

1. 1,129 1,736
   45 54 35 72

2. quarter, dime, nickel

3. **Number of A's in Math**



Each ☺ means 5 A's.

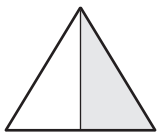
4.

Input	1	3	6	7	9
Output	9	27	**54**	**63**	**81**

5. 20 to 40 cm

6. 20 tens

7. B and C

8. 

9. $12 – $4 = $8 and $8 ÷ $2 = 4 weeks.

10. 3 hours and 30 minutes

11. 10 $1 bills

12. 6 different outfits:
    red shirt + yellow skirt
    red shirt + blue skirt
    red shirt + pink skirt
    pink shirt + yellow skirt
    pink shirt + blue skirt
    pink shirt + pink skirt

Quiz 6

1. 1,152 3,638
   30 24 42 48

2. a. 25 × 4

3. Bob

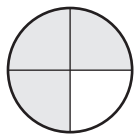
4.

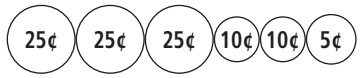
Input	1	3	6	7	9
Output	6	**18**	36	**42**	**54**

5. 98°F

6. 9 × 100 plus 5 × 10 plus 7 × 1
   = 900 + 50 + 7
   = 957

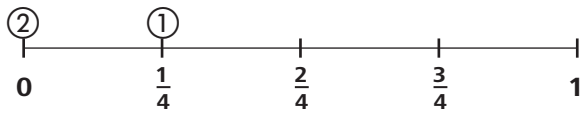
7. 6 faces vs. 5 faces; 8 vertices vs. 5 vertices

8. 

9. 

10. 5:40

11. a. 1.5 hours

12. 

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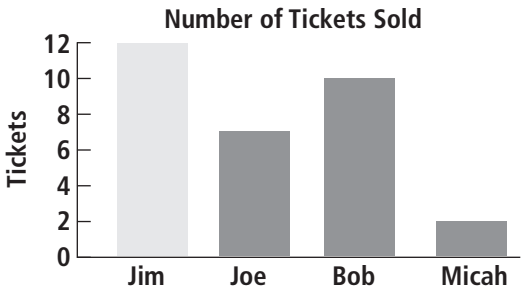
Answer Key: Quizzes

Quiz 7

1. 1,252 3,335
   49 56 48 64

2. 8 × $3.00 = $24.00

3. 

4.

Input	1	3	4	7	9
Output	7	**21**	**28**	49	**63**

5. **A.** 74°F
   B. 75°F

6. 865 = 8 × 100 plus
   6 × 10 plus
   5 × 1

7. 4 faces vs. 5 faces; 4 vertices vs. 5 vertices or 6 edges vs. 8 edges

8.

9. $1.14

10.

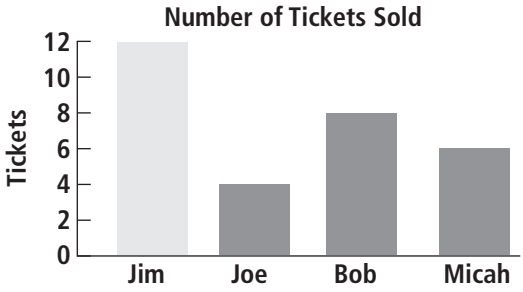
11. 15

12. 1 out of 6 or $\frac{1}{6}$

Quiz 8

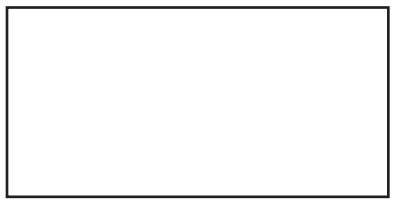
1. 1,343 7,729
   42 72 40 56

2. $1.20

3. 

4.

Input	1	3	4	7	9
Output	6	**18**	**24**	42	**54**

5. 

6. 126

7. B

8.

9. $10.00 – $2.75 = $7.25

10. 5:05 or 5 minutes after 5

11. 20

12. white gumball

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Quiz 9

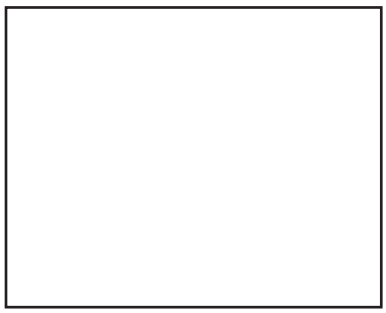
1. 11,912 4,798
   21 32
   6 7

2. $9 \times 4 = 36$, $36 \div 4 = 9$, $36 \div 9 = 4$

3. Bill

4.

Input	5	10	20	30	35
Output	1	2	**4**	**6**	**7**

5. 

   Perimeter: 18 cm

6. 10,000 cm

7. The rectangle has two sides that are longer than its other sides; the square has 4 equal sides.

8. Answers will vary but may include: $\frac{2}{2}$.

9. \$10.00 – (\$4.20 +\$1.20 + \$.27) = \$4.33

10. 9:30 or half past 9

11. b. 80

12. $\frac{2}{6}$ or $\frac{1}{3}$

Quiz 10

1. 6,844 2,115
   49 64
   7 8

2. 6.8 blocks

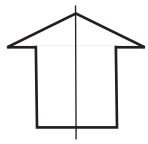
3. bicycling

4.

Input	18	36	81	90	63
Output	2	4	**9**	**10**	**7**

5. Area = 4 cm^2

6. 2 hundreths

7. 

8. Answers will vary.

9. \$.30 + \$0.10 + \$.50 + \$.75 = \$1.65

10. 1:45 or 15 minutes before 2:00

11. b. 30

12. $\frac{3}{6}$ or $\frac{1}{2}$

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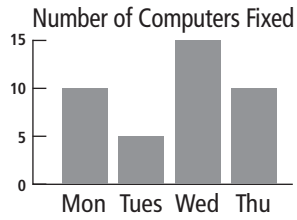
Answer Key: Quizzes

Quiz 11

1. 6,475 4,906
   180 120 168
   20 50

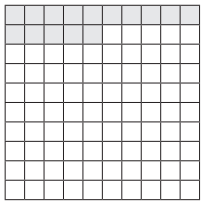
2. 400 ÷ 8 = 50 cages

3. 

4.

Driving hours	1	2	3	4	5
Distance traveled in miles	65	**130**	**195**	**260**	**325**

5. 54 meters

6. 

7.

8. $\frac{1}{4} < \frac{1}{3} < \frac{1}{2}$

9. 5 × $1.25 = $6.25

10. 7:25

11. 600

12. a. $\frac{10}{20}$

Quiz 12

1. 10,941 1,186
   250 10 260
   3 31

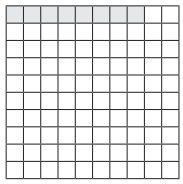
2. 4 × 7 = 28, 28 ÷ 4 = 7, 28 ÷ 7 = 4

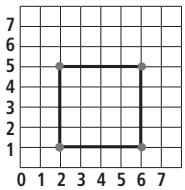
3. Wednesday

4. 10, 9, 8

5.

   Area: 6 cm^2, Perimeter: 10 cm

6. 

7. 

8. $\frac{1}{3} < \frac{2}{3} < \frac{3}{4}$

9. 4 days

10. 7:50

11. 500

12. Your brother has a chance of 4 out of 8 and you have a chance of 3 out of 8. The game is not fair because your brother has a better chance of winning.

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Quiz 13

1. 10,635 2,328
   120 18 138
   8 84

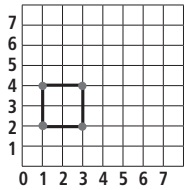
2. 15 × $9 = $135

3. 1999

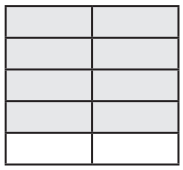
4. 10, 9, 8

5. 3 to 4 kg

6. 830 = 8 × 100 plus
   3 × 10 plus
   0 × 0

7. 

   missing point is (3,4)

8. 

9. $10 – $4 = $6; 6 ÷ 2 = 3 weeks

10. 1 hour and 5 minutes

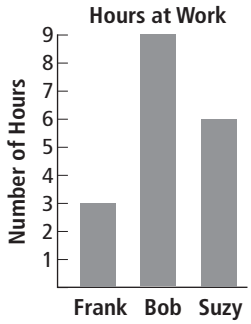
11. 600

12. 30 out of 40 or $\frac{30}{40}$

Quiz 14

1. 6,790 2,090
   560 42 602
   9 92

2. $81 ÷ $9 = 9 tickets

3. 

4. 70 × 5 (>) 300, 200 ÷ 4 (<) 60

5. 12 cm^3

6. 30 tens

7. rectangle

8. $\frac{2}{10} < 0.3$

9. poster, card, crayon, notebook = $9.20

10. 2 hours and 5 minutes

11.

Souvenir	Cost	Rounded to $1
Baseball cap	$10.20	**$10.00**
Foam "#1" hand	$9.80	**$10.00**

12. There are 4 possible outfits:
    red shirt + red pants
    red shirt + blue pants
    blue shirt + red pants
    blue shirt + blue pants

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Answer Key: Quizzes

Quiz 15

1. 11,924 1,392
   400 24 424
   7 73

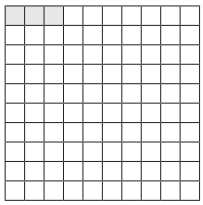
2. 49 ÷ 7 = 7 tickets

3. 42° in November does not appear on the graph

4.

Driving time (hours)	1	2	3	4
Driving distance (miles)	50	100	150	200

5. 32 cm^3

6. 

7. 16 cubes

8. $\frac{10}{100} < 0.3$

9. shorts, socks, and a belt = $10.00

10. 0 hours and 40 minutes

11. d. $30 to $60

12. bag #1

Quiz 16

1. 86 55 8 2

2. b. $(2 \times 6) \times 7 = n$

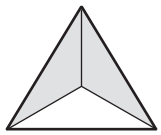
3. 600 eggs

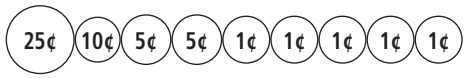
4. X X Y X **X** Y X **X** Y
   O X O O X **O** O **X**

5. $3\frac{1}{2}$ inches

6. 4,325

7. Answers will vary but may include: Ohio & Main, Ohio & Maple, and Maple & Willow.

8. 

9. 

10. Product: 30
    Factors: 10, 3

11. a. 100

12. 8 different sandwiches:
    white bread + chicken + lettuce
    white bread + chicken + tomato
    white bread + beef + lettuce
    white bread + beef + tomato
    rye bread + chicken + lettuce
    rye bread + chicken + tomato
    rye bread + beef + lettuce
    rye bread + beef + tomato

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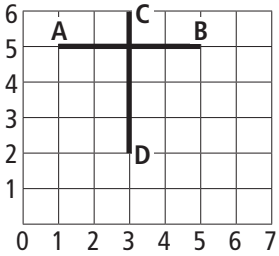
Quiz 17

1. 113 45 18 7

2. Michael

3. **A.**



B. C = (3, 6) and D = (3, 2)

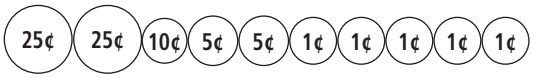
4. The number of squares increased as the figure number increased.

5. 12 cups

6. 4, 2, 8

7. Answers will vary but may include: Market Street & 4th Avenue, Ohio Street & 5th Avenue, and Main Street & 5th Avenue.

8. $\frac{5}{10}$ or $\frac{1}{2}$

9. 

10. 4 and 5

11. b. 600

12. 8 combinations:
    red + gray
    red + burgundy
    silver + gray
    silver + burgundy
    black + gray
    black + burgundy
    green + gray
    green + burgundy

Quiz 18

1. 174 255 24 7

2. 6 days

3. 3 days

4.

Puppy's Age	Puppy's Weight
1 month	15 lbs
2 months	19 lbs
3 months	23 lbs
4 months	**27 lbs**
5 months	**31 lbs**

5. 144 cups

6. 795.63

7. **Common:** Both are 4-sided figures (quadrilaterals).
   Different: The first figure has 4 equal sides and the second figure has sides of different lengths.

8. 3 pieces

9. \$10.00 – \$2.75 = \$7.25

10. 3 and 8 or 4 and 6

11. 0 + 0.6 + 0 + 0.1 + 0.9 + 0.1 + 1.2 = 2.9 or about 3 cm

12. 6 combinations:
    black pants + black shirt
    black pants + blue shirt
    red pants + black shirt
    red pants + blue shirt
    white pants + black shirt
    white pants + blue shirt

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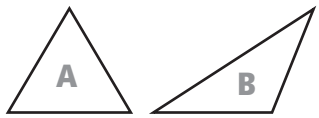
Answer Key: Quizzes

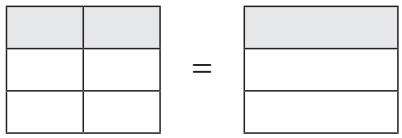
Quiz 19

1. 1,024 177 28 2
2. 7 groups
3. 40, 30, 40, 50, 40, 35, 40
4. $6 \times 5 = 30$
5. 12 degrees
6. 12,560,000
7.
8.

9. 6 $1 bills
10. 35
11. 5 $1 bills
12. 6 combinations:
    yellow skirt + red shirt
    yellow skirt + white shirt
    yellow skirt + pink shirt
    pink skirt + red shirt
    pink skirt + white shirt
    pink skirt + pink shirt

Quiz 20

1. 922 274 32 10
2. 4 students were substitutes
3. Average = 3 pancakes (4 + 2 + 3 = 9; 9 ÷ 3 = 3)
4. 128 chirps
5. 92 degrees
6. 300
7. 

8. Answers will vary but may include:

9. No. The correct change is $4.20.
10. Answers will vary but may include 7, because 7 has only 1 and itself as factors.
11. $70
12. certain

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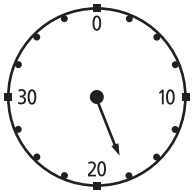
Quiz 21

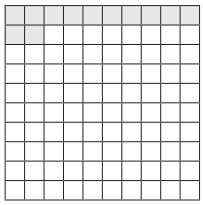
1. 763 191 40 8

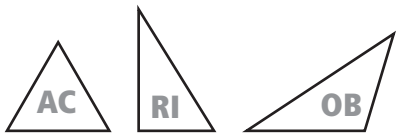
2. $(10 \times 12) + (20 \times 6) = 240$ crayons

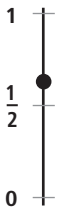
3. mode = 4 miles; mean = 4 miles

4. $T \times 45$

5. 

6. 

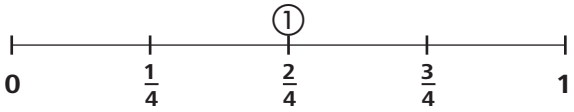
7. 

8. 

9. \$41 = \$12 + \$24 + \$5

10. 1, 2, 4, 8

11. a. 30 minutes

12. 

Quiz 22

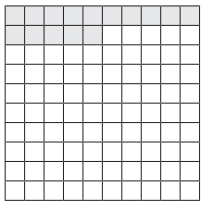
1. 905 463 30 10

2. 2 hours and 50 minutes

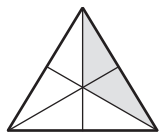
3. The bar graph tells how many minutes Jan walked every day.

4. $T = N \times 3$

5. Answers will vary.

6. 

7. right triangle; scalene triangle

8. sixths 

9. \$6.96

10. 7, 14, 21, 28, 35,...

11. 21

12. 3 out of 6 or $\frac{3}{6}$

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Answer Key: Quizzes

Quiz 23

1. 832 258 310 4

2. 1. 30 containers of 1 pound each
   2. 10 contains of 3 pounds each
   3. Answers will vary, but may include: 15 containers of 1 pound each and 5 containers of 3 pounds each.

3. Answers will vary but may include: 3, 4, 7, 9, 10.

4.

In	4	5	10	15	7
Out	12	15	30	**45**	**21**

   N × 3

5. Area = 6 square units
   Perimeter = 10 units

6. 40.131, 40.103, 40.001

7. Answers will vary but may include: (2,5), (2,2), (5,5), (5,2).

8. $1\frac{4}{4}$ or 2

9. notebook, marker, poster, card

10. 24

11. 70

12. $\frac{1}{4}$, $\frac{1}{4}$

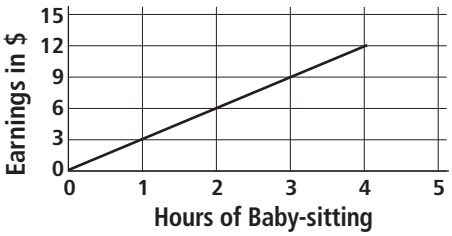
Quiz 24

1. 6,023 2,076 656 9

2. 40 ÷ 5 = 8; 8 × 24 = 192 liters

3.

Hours of baby-sitting	0	1	2	3	4
Earnings in $	0	$3	$6	**$9**	**$12**



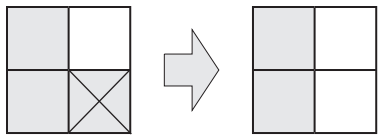
4. 3R = R+ R + R or 3 × R

5. Area = 7 units^2
   Perimeter = 12 units

6. 43.11 seconds

7. Both figures are solids; both have a rectangular base; both have edges; and both have vertices.

8. $\frac{3}{4} - \frac{1}{4} = \frac{2}{4}$



9. $1.47

10. 17

11. 80

12. $\frac{1}{6}$, $\frac{1}{6}$

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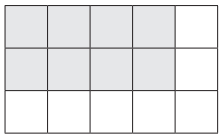
Quiz 25

1. 738 30

2. 20 ÷ 34, or about $\frac{1}{2}$ cup

3. 3 students

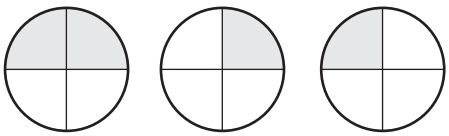
4. N × 3 + $7

5. 

6. 90,200,000

7. The base of the first figure is a triangle and the base of the second is a rectangle. The first figure has 3 faces and the second has 5 faces. The first figure has 6 edges and the second has 8 edges.

8. No, it's not correct.



$\frac{2}{4} - \frac{1}{4} = \frac{1}{4}$

9. $1.77

10. 2

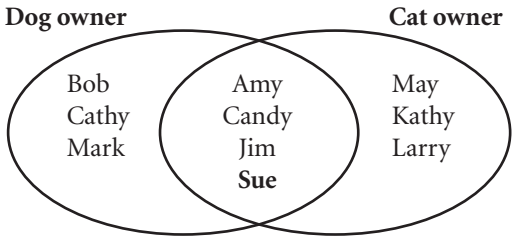
11. b. 30

12. $\frac{3}{6}$ or $\frac{1}{2}$

Quiz 26

1. 960 9

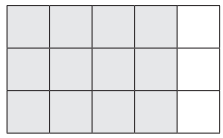
2. Each gets $12.50; $1 remainder can be divided into $.50 each.

3. 

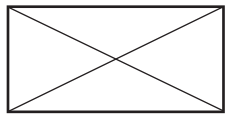
4.

Column A	Column B
3	9
4	12
10	**30**
12	**36**

B = A × 3

5. 

6. 215 < 251, 512, 521

7. 

8. Answers will vary but may include:
$\frac{4}{4}$ is the same as 1.

9. about $10.00

10. 6 × 58 is the same as:
= (6 × 60) – (6 × 2) and
= 360 – (12)
= (348)

11. a. 3

12. $\frac{10}{20}$ or $\frac{1}{2}$

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Answer Key: Quizzes

Quiz 27

1. 288 7

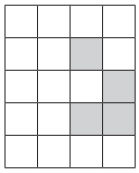
2. 4 packages of hot dogs, 3 packages of buns, and 3 packages of drinks

3. Mode = 80

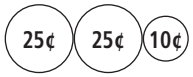
4. 43 inches = (9 × 3) + 16

5. 9 inches

6. 1,825

7. 

8. $4\frac{1}{2}$ cups

9. 

10. 7 × 59 is the same as
    = (7 × 60) – (7 × 1) and
    = 420 – (7)
    = (413)

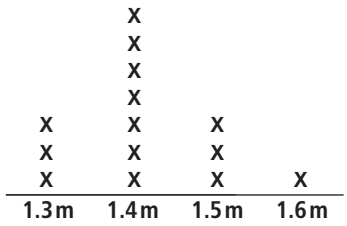
11. 45,000

12. No, this is not a fair game. Your brother has four chances to win (1, 2, 3, 4) and you only have three chances to win (6, 7, 8).

Quiz 28

1. 600 8

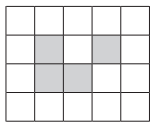
2. Answers will vary but may include:
   1. 15 2-pound bags
   2. 10 3-pound bags
   3. 2 3-pound bags and 12 2-pound bags

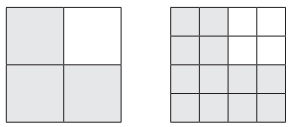
3. 

4. T = N × $3.00

5. 4 units

6. 54, 650 = 50,000 + 4,000 + 600 + 50

7. 

8. $\frac{3}{4} = \frac{12}{16}$ 

9. crayon, notebook, and marker

10. 8 × 39 is the same as
    = (8 × 40) – (8 × 1) and
    = 320 – (8)
    = (312)

11. $12.00

12. 2 gumballs

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Quiz 29

1. 1,550 7

2. Answers will vary but may include:
   1. 12 2-pound bags
   2. 8 3-pound bags
   3. 6 2-pound bags and 4 3-pound bags

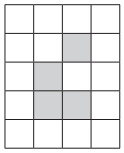
3.

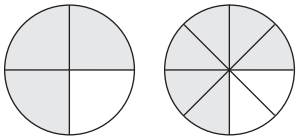
Range of Score	Mode Score	Median Score
100 – 50 = 50	80	80

4. T (minutes) = N × 20 minutes

5. Area = 4 cm^2

6. least: 1,456: greatest: 6,541

7. 

8. $\frac{3}{4} = \frac{6}{8}$ 

9. $2.22

10. A prime number is one that has only itself and 1 as factors. Examples are 2, 3, 5, 7, 11, and 13.

11. $26.00

12. 2 combinations:
    red shirt + red pants
    blue shirt + blue pants

Quiz 30

1. 62 × 12 = 744 9

2. Sugar: 12 cups
   Lemonade: 6 cans
   Water: 6 quarts

3.

Range of Heights in m	Mode Height in m	Median Height in m
1.6 – 1.3 = 0.3 m	1.5	1.5

4. H × 3 cm

5. 125 1-cm^3 cubes

6. 0.15

7. One figure has two round faces and the other has only one round face. One has a short vertex and the other doesn't.

8. $\frac{5}{8} + \frac{7}{8} = \frac{12}{8}$ or $1\frac{4}{8}$ or $1\frac{1}{2}$

9. about $15.00

10. 29

11. 120

12. 1

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Progression Chart: Quizzes

Name _____

Clusters	Quiz Numbers														
1 Addition															
Subtraction															
Multiplication															
Division															
2 Problem solving															
3 Data and Graphs															
4 Patterns and Functions															
5 Measurement															
6 Place Value															
7 Geometry															
8 Fraction															
9 Money															
10 Time/Properties of Number Operations															
11 Estimation															
12 Probability															

Legend: X: correct answer Δ: half correct ∅: incorrect ☒: no answer

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