Amplify Desmos Math

Grade 3

Additional Practice
Student Resources

About Amplify

Amplify is dedicated to collaborating with educators to create learning experiences that are rigorous and riveting for all students. Amplify creates K–12 core and supplemental curriculum, assessment, and intervention programs for today's students.

A pioneer in K–12 education since 2000, Amplify is leading the way in next-generation curriculum and assessment. All of our programs provide teachers with powerful tools that help them understand and respond to the needs of every student.

Amplify gratefully acknowledges the work of distinguished program advisors from the English Learners Success Forum (ELSF), who have been integral in the development of Amplify Desmos Math. ELSF is a 501(c)(3) nonprofit organization whose mission is to expand educational equity for multilingual learners by increasing the supply of high-quality instructional materials that center their cultural and linguistic assets.

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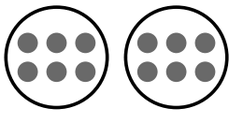
Additional Practice

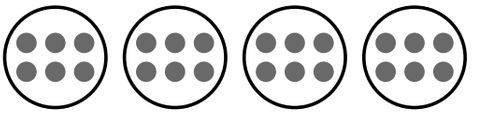
Practice Problems

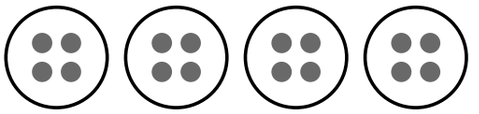
Name _____ Date _____

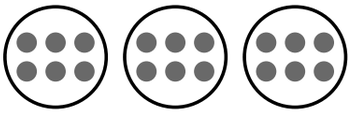
Additional Practice 1.02

1 There are 4 buses. Each bus has 6 wheels. Which equal-groups drawing represents this situation?

A 

B 

C 

D 

For Problems 2 and 3, represent the situation with an equal-groups drawing.

Draw

2 There are 14 players in a soccer team, divided into groups of 7 to practice passing drills.

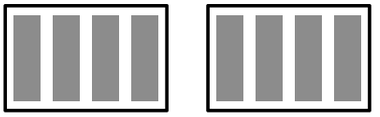
3 There are 5 cones in each set, and there are 2 sets of cones.

Name _____ Date _____

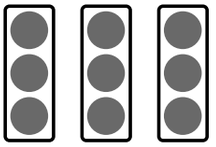
For Problems 4–6, match each drawing to the situation it represents.

4 

There are 2 teams.
Each team has 4 players.

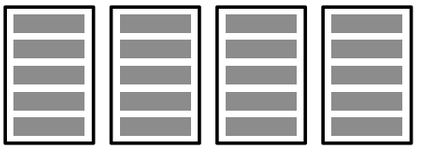
5 

There are 3 boxes.
Each box has 3 footballs.

6 

There are 3 bags.
Each bag has 2 books.

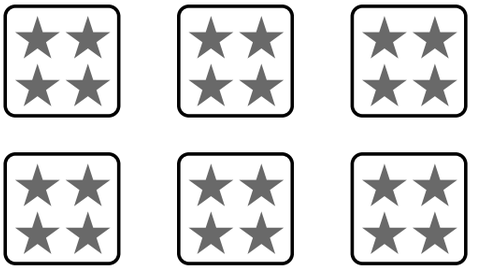
For Problems 7–8, describe a situation that could be represented by the drawing.

7 

_____

_____

_____

8 

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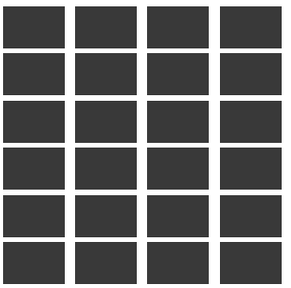
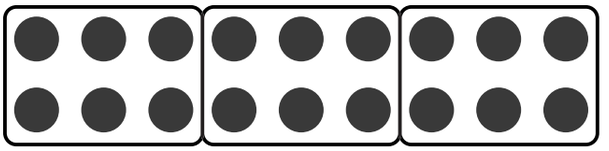
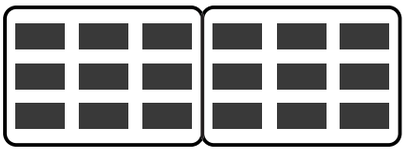
_____

_____

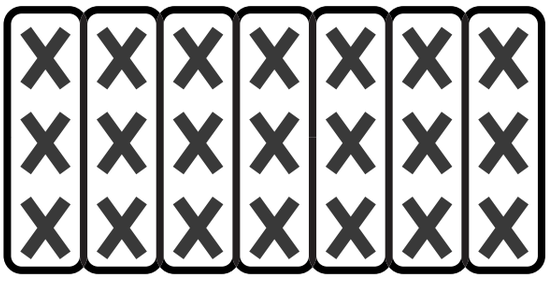
Name _____ Date _____

Additional Practice 1.03

For Problems 1–3, match the drawing with the expression it represents.

	Drawing	Expression
1		_____ 2×9
2		_____ 4×6
3		_____ 3×6

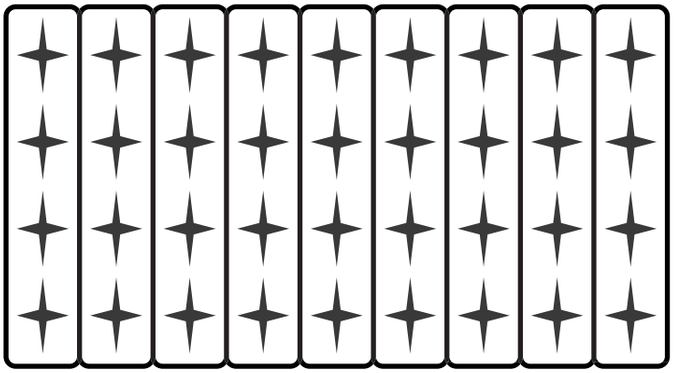
For Problems 4 and 5, write a multiplication expression to represent the drawing.

4 

_____

Name _____ Date _____

5



_____

6 Select all the situations that could be represented by the diagram.

Options:

(A) There are 6 jars with 3 candies in each jar.

(B) There are 3 baskets with 6 apples in each basket.

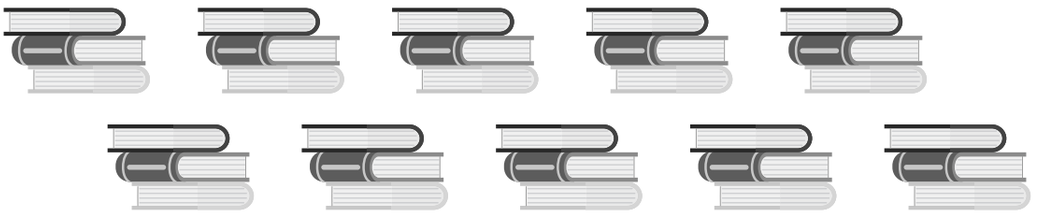
(C) There are 6 boxes with 3 balls in each box.

(D) There are 3 trays with 2 cookies in each tray.

(E) There are 6 bicycles with 2 wheels on each bicycle.

(F) There are 6 shelves with 3 books on each shelf.

7 Write a multiplication expression to represent the diagram.



answer: _____

Name _____ Date _____

Additional Practice 1.04

1 Ms. Lin has 6 cartons of eggs. Each carton has 12 eggs. How many eggs does Ms. Lin have altogether?

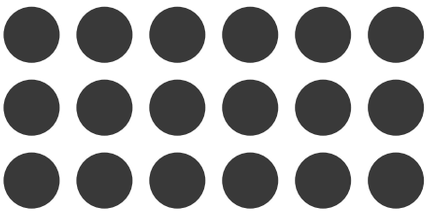
(A) 72 eggs (B) 48 eggs (C) 36 eggs (D) 18 eggs

2 Nishia takes her dog for a walk. Each block has 4 houses, and she walks 4 blocks. How many houses does she walk past?

_____

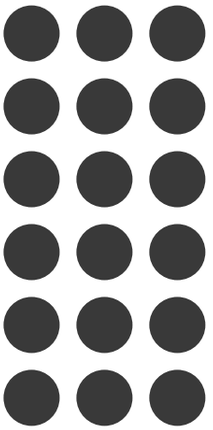
For Problems 3 and 4, complete the statement.

3



_____ rows of _____ = _____ × _____ = _____

4



_____ rows of _____ = _____ × _____ = _____

Name _____ Date _____

For Problems 5–6, solve the problem and write an expression that represents the situation.

Show or explain your thinking.

5 There are 4 soccer teams in the park. Each team has 7 players. How many soccer players are at the park?

answer: _____ players

expression: _____ × _____

6 Liam has 5 boxes of crayons. Each box contains 3 crayons. How many crayons does Liam have?

answer: _____ players

expression: _____ × _____

Name _____ Date _____

Additional Practice 1.05

For Problems 1–4, solve the problem using any strategy.

Show or explain your thinking.

1 There are 8 pencils in each box. Each set contains 5 boxes. How many pencils are there in total?

answer: _____ pencils

2 There are 24 students in a classroom. Each group has 8 students. How many groups are in the classroom?

answer: _____ groups

Name _____ Date _____

3 Emily had 36 marbles. She divided them into 6 equal bags. How many marbles did she put in each bag?

(A) 5 marbles
(B) 6 marbles
(C) 10 marbles
(D) 12 marbles

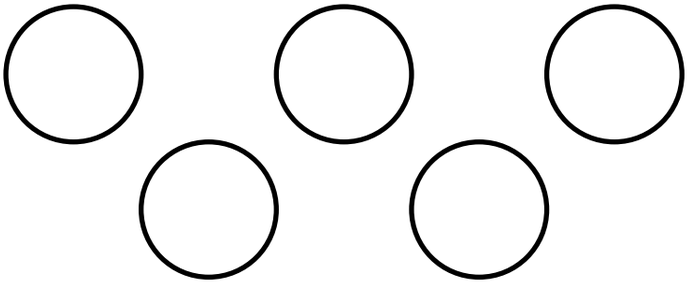
4 Sam collected 24 apples. He divided them into 6 equal baskets. How many apples were in each basket?

(A) 2 apples
(B) 3 apples
(C) 4 apples
(D) 6 apples

5 Jack has 81 marbles. He puts them in 9 equal bags. How many marbles are in each bag?

_____

6 There are 15 toy cars. Bobby wants to divide them into equal groups. How many toy cars will be in each group?

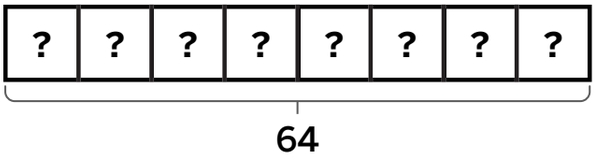


answer: _____

Name _____ Date _____

Additional Practice 1.06

1 Which multiplication equation represents the diagram?



(A) ? = 8 × 64

(B) 64 × 8 = ?

(C) 64 = ? × ?

(D) 64 = 8 × ?

2 Mark has 5 baskets of bananas. Each basket contains 8 bananas. Which equation would determine the total number of bananas?

(A) 8 = ? × 5

(B) ? × 8 = 5

(C) ? = 5 × 8

(D) ? = 8 + 5

Use the situation for Problems 3 and 4.

A spider has 8 legs. In a garden, there are 6 spiders. How many spider legs are there altogether?

3 Write a multiplication equation to represent the problem. Use a ? to represent the unknown value.

_____

4 Solve for the number of spider legs.

Show or explain your thinking.

answer: _____ spider legs

Name _____ Date _____

Use the situation for Problems 5 and 6.

There are 9 basketball teams. Each team has 12 players. How many players are there altogether?

5 Write a multiplication equation to represent the problem. Use a ? to represent the unknown value.

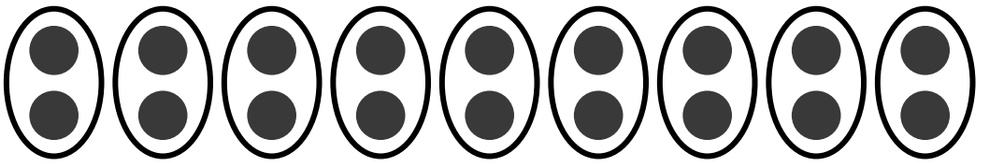
_____

6 Solve for the number of players.

Show or explain your thinking.

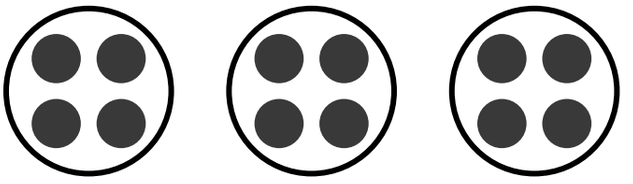
answer: _____ players

7 Which multiplication equation represents the diagram?



(A) ? = 18 × 2 (B) 18 = ? × 2 (C) 18 = 3 × ? (D) ? × 2 = 9

8 Complete the equation.



_____ groups of _____ = _____ total

Name _____ Date _____

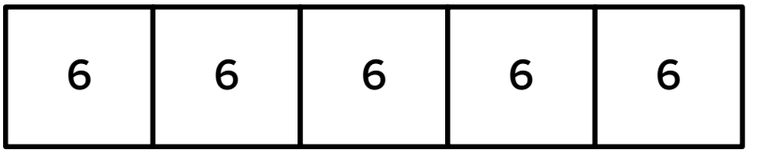
Additional Practice 1.07

1 Match the expression with its product.

9×3	9
3×3	18
6×3	27

2 Select *all* the representations of the multiplication equation $5 \times 6 = 30$.

A



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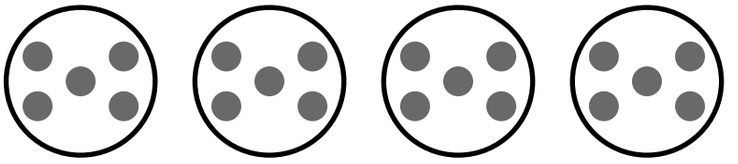
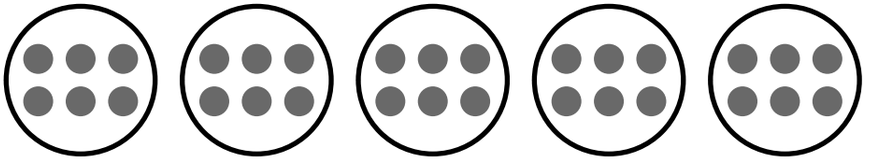
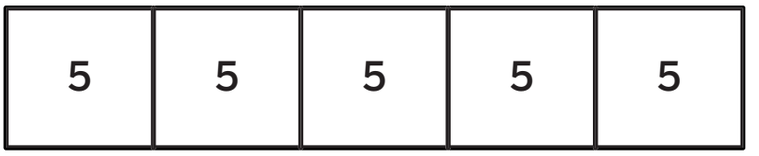


C



D



E John has 6 packs of markers with 4 markers in each pack.

F John has 5 shelves, and each shelf holds 6 books.

Name _____ Date _____

3 Create a drawing, tape diagram, or situation to represent the multiplication equation $8 \times 4 = 32$. Show your reasoning.

Draw

For Problems 4–7, determine the product.

Show or explain your thinking.

4 $5 \times 8 =$ _____

5 $4 \times 5 =$ _____

6 $2 \times 9 =$ _____

7 $6 \times 2 =$ _____

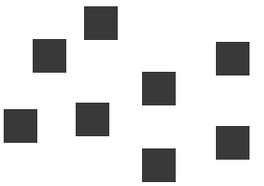
Name _____ Date _____

Additional Practice 1.08

1 Show 1 way in which the set of stars could be rearranged into an array.

Draw

2 Create as many arrays as you can using the same number of squares as shown in the image.



Draw

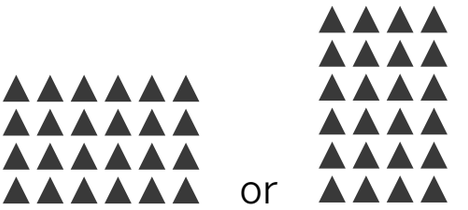
3 Create 2 different arrays using 16 dots.

Draw

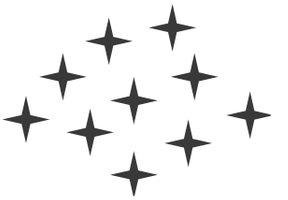
Name _____ Date _____

4 Choose 1 of your arrays in Problem 3. How is the array related to equal groups? Explain your thinking.

5 How are the 2 arrays alike? How are they different? Explain your thinking.

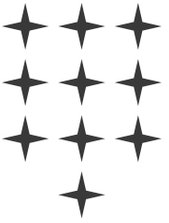


6 Look at the set of stars. Which image does **not** show the set of stars arranged into an array?



(A) 

(B) 

(C) 

(D) 

Name _____ Date _____

Additional Practice 1.09

Use the situation for Problems 1 and 2.

A garden has 7 rows of flowers. Each row has 5 flowers.

1 Create an array to represent the situation.

Draw

2 Write 2 multiplication expressions that would determine the total number of flowers.

_____ _____

Use the situation for Problems 3 and 4.

There are 2 rows of stickers on a sheet. There are 5 stickers in each row.

3 Create an array to represent the situation.

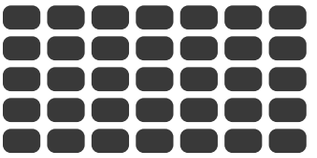
Draw

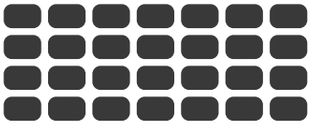
Name _____ Date _____

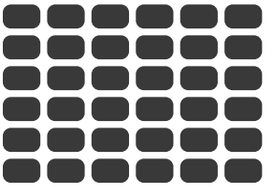
4 Write 2 multiplication expressions that could be used to determine the total number of stickers on a sheet.

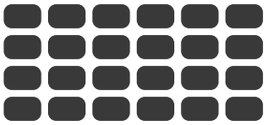
_____ _____

5 Which array represents the expression 7 × 4?

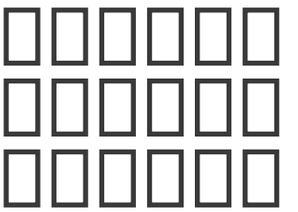
(A) 

(B) 

(C) 

(D) 

6 Which equation best represents the array?



(A) 10 + 8 =18

(B) 9 × 2 = 18

(C) 14 + 4 =18

(D) 6 × 3 = 18

7 Create an array to represent the multiplication equation 5 × 4 = 20.

Draw

Name _____ Date _____

Additional Practice 1.10

Use the story problem for Problems 1 and 2.

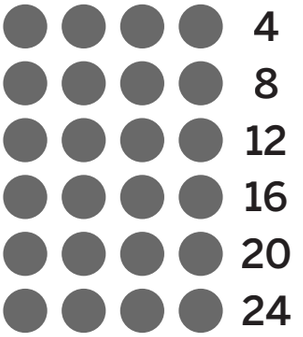
There are 24 apples placed in an array on a table. There are 4 apples in each row. How many rows of apples are there?

1 Write a multiplication equation to represent the problem. Use a ? for the unknown value.

_____

2 Determine the number of rows of apples. Then rewrite the equation with the number that makes it true.

Show or explain your thinking.



answer: _____ rows.

equation: _____ × 4 = 24 or 24 = _____ × 4

3 Jada was organizing pencils. She arranged 36 pencils in an array with 9 rows. Which equation could be used to determine the number of pencils in each row? Select *all* that apply.

(A) 9 × ? = 36

(B) 9 × 36 = ?

(C) ? × 9 = 36

(D) ? × 36 = 9

(E) 36 = ? × 9

Name _____ Date _____

Use the story problem for Problems 4 and 5.

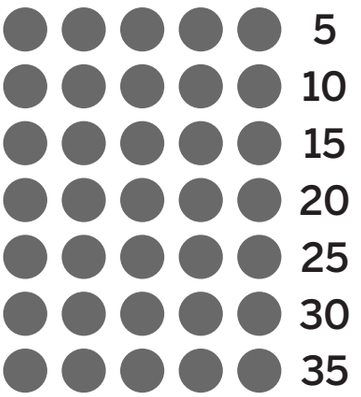
There are 35 photos arranged in an array on the wall. There are 5 photos in each row. How many rows of photos are there?

4 Write a multiplication equation to represent the problem. Use a ? for the unknown value.

_____

5 Determine the number of rows of photos. Then rewrite the equation with the correct number.

Show or explain your thinking.



answer: _____ rows of photos.

equation: _____ × 7 = 35 or 35 = _____ × 7

6 A librarian organizes 12 magazines in an array. There are 4 magazines in each row. How many rows of magazines are there?

(A) 2 rows

(B) 3 rows

(C) 4 rows

(D) 5 rows

Name _____ Date _____

Additional Practice 1.11

Draw

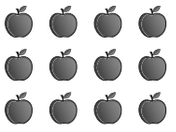
1 Students are setting up 16 chairs for a class meeting. Show how the chairs could be arranged in an array.

2 An egg carton has 30 eggs. Show how the eggs could be organized in an array.

3 A team of 28 athletes is preparing for a game. Show how they could be lined up in an array.

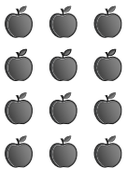
Name _____ Date _____

4 A box of apples can hold 15 apples. Select *all* the ways in which the apples could be shown as an array.

(A) 

(B) 

(C) 

(D) 

(E) 

(F) 

5 Priya has 3 groups of 4 hair clips and Jada has 4 groups of 3 hair clips. Do they have the same number of hair clips? Explain your thinking.

Show your thinking.

Name _____ Date _____

Additional Practice 1.12

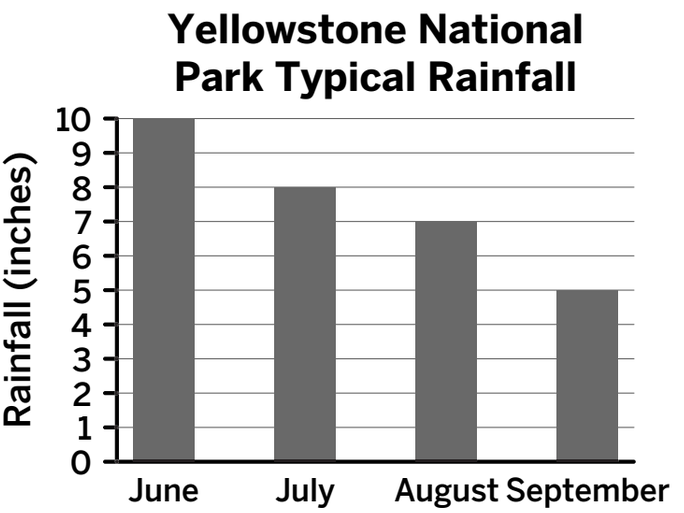
For Problems 1–3, use the bar graph about the typical rainfall at Yellowstone National Park.

1 How many *more* inches of rain typically fall in June than in September?

_____

2 How many inches of rain usually fall in July and August combined?

_____



3 State whether this statement is *true* or *false*:

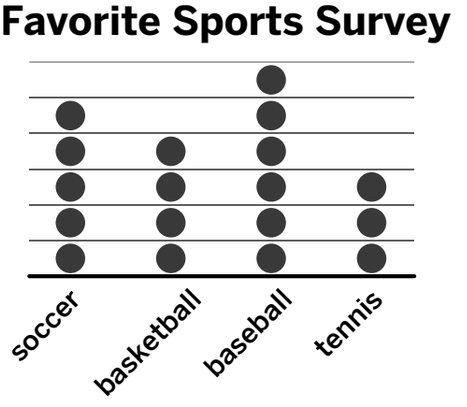
The total typical rainfall from June through September is 32 inches.

_____

For Problems 4–5, use the picture graph.

4 How many students chose either soccer or baseball in total?

- (A) 8 students
- (B) 10 students
- (C) 11 students
- (D) 12 students



Name _____ Date _____

5 How many *more* students chose basketball or tennis combined than soccer?

(A) 1 student

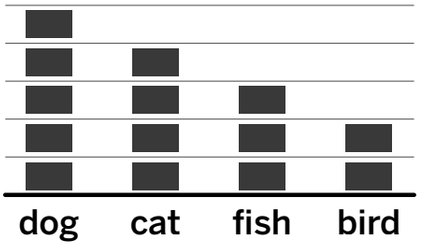
(B) 2 students

(C) 3 students

(D) 4 students

For Problems 6–8, use the picture graph.

Favorite Type of Pet



Each ■ represents 1 person.

6 How many *fewer* people chose birds than cats?

answer: _____

7 How many people chose dogs or fish?

answer: _____

8 State whether this statement is *true* or *false*:

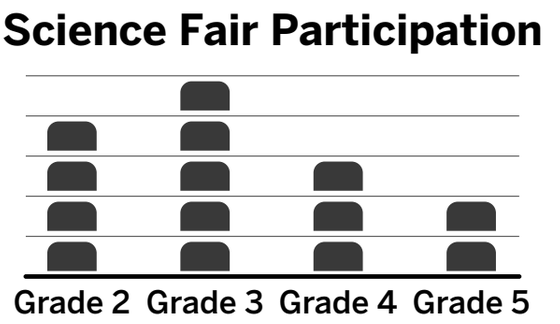
5 more people chose dogs or cats combined than birds.

_____

Name _____ Date _____

Additional Practice 1.13

For Problems 1–3, use the picture graph about the number of students who participated in the school science fair.



1 How many Grade 3 students participated in the science fair?

answer: _____ students.

2 How many *more* Grade 2 students participated than Grade 5 students?

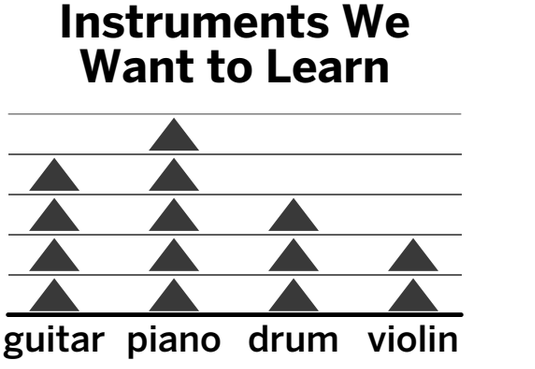
answer: _____ students.

3 Write another question that could be answered using the graph.

_____

_____

For Problems 4–6, use the picture graph about musical instruments that some students want to learn to play.



4 How many students want to learn piano?

answer: _____ students.

Name _____ Date _____

5 How many *fewer* students want to learn violin than drums?

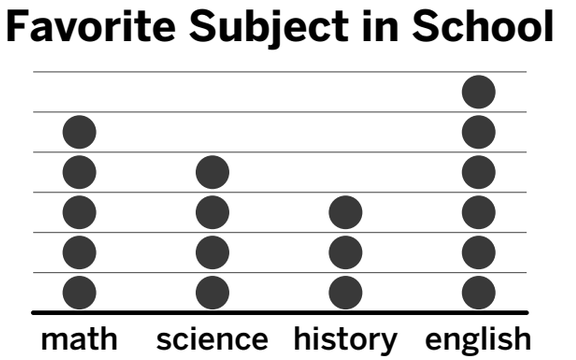
answer: _____ students.

6 Write another question that could be answered using the graph.

_____

_____

For Problems 7 and 8, use the picture graph.



7 How many students choose math or history?

(A) 8 students

(B) 12 students

(C) 20 students

(D) 32 students

8 How many *more* students chose English than Science?

(A) 4 students

(B) 8 students

(C) 10 students

(D) 16 students

Name _____ Date _____

Additional Practice 1.14

Use the table about students' favorite fruits for Problems 1 and 2.

1 Complete the scaled picture graph for the data in the table.

Favorite Fruits

Fruit	Number of Students
Apple	8
Banana	6
Orange	10
Grape	2

Favorite Fruits

_____
_____
_____
_____
_____

apple banana orange grape

Each ● represents 2 students.

2 The next day, 2 more students said their favorite fruit was an apple, and 3 more students said their favorite fruit was a grape. Add the data to the graph.

Use the table about students' favorite subjects for Problems 3 and 4.

3 Complete the scaled picture graph for the data in the table.

Favorite Subject

Subject	Number of Students
Math	10
Science	15
History	5
English	10

Favorite Subject

_____
_____
_____
_____
_____
_____
_____

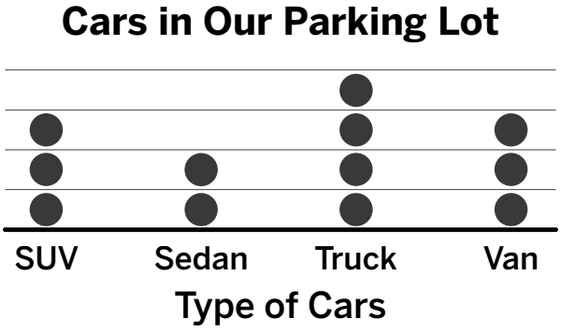
Math Science History English

Each ● represents 2 students.

Name _____ Date _____

4 The next day, 5 students said their favorite subject was math, and 10 more students said their favorite subject was history. Add the data to the graph.

5 The scaled picture graph below shows the number of cars in a parking lot. If 4 more sedan cars arrive, what needs to change on the graph?



Each ● represent 2 cars.

(A) Draw 1 half ● for sedan.

(B) Draw 2 whole ● for sedan.

(C) Draw 4 whole ● for sedan.

(D) Remove 1 whole ● for sedan.

Name _____ Date _____

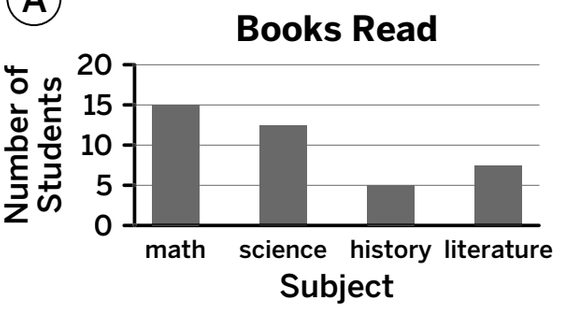
Additional Practice 1.15

1 The table below shows the number of books read by students in different subjects. Which scaled bar graph correctly represents the data?

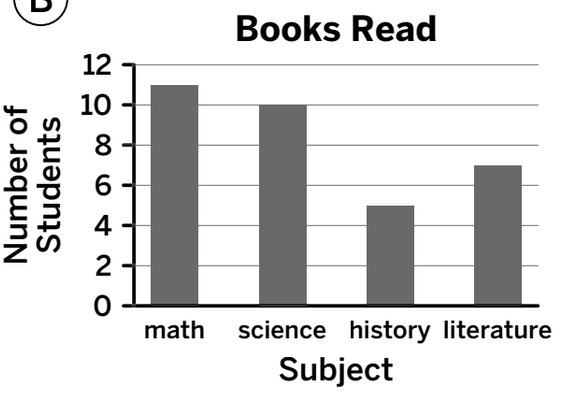
Books Read

Subject	Number of Books
Math	15
Science	10
History	5
Literature	12

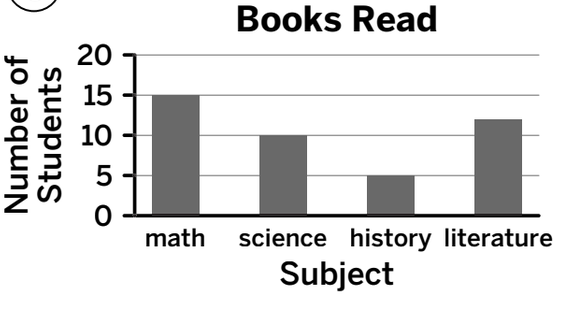
A



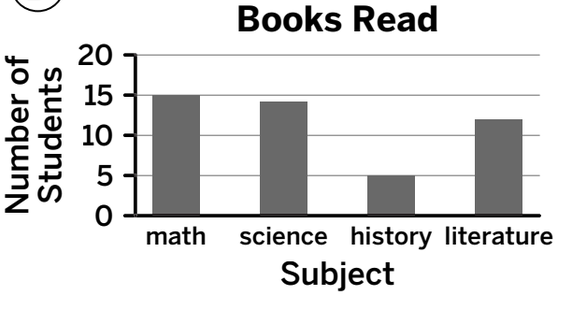
B



C



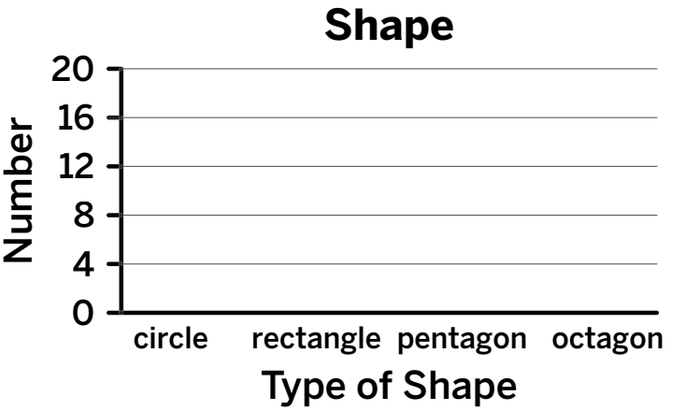
D



Name _____ Date _____

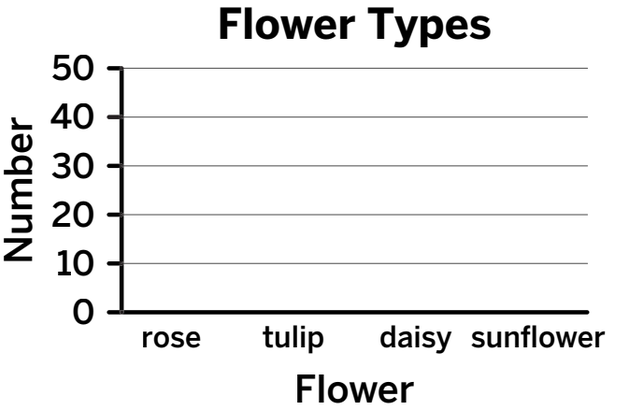
2 Use the data in the table to complete the scaled bar graph.

Shape	Number
Circle	14
Rectangle	11
Pentagon	8
Octagon	16



3 Use the data in the table to complete the scaled bar graph.

Flower Type	Number
Rose	50
Tulip	35
Daisy	20
Sunflower	40

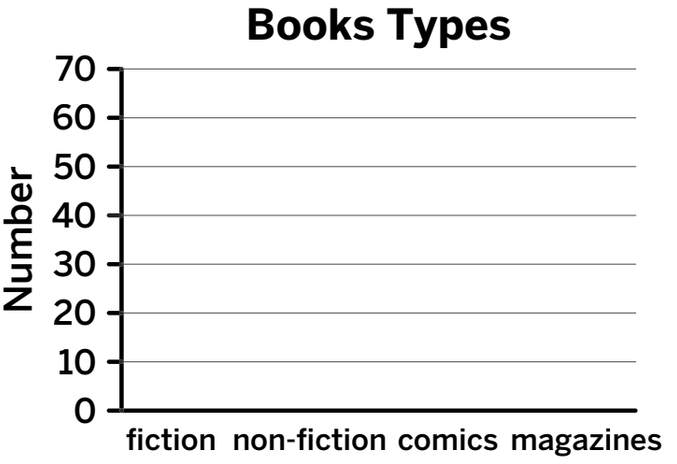


Name _____ Date _____

Additional Practice 1.16

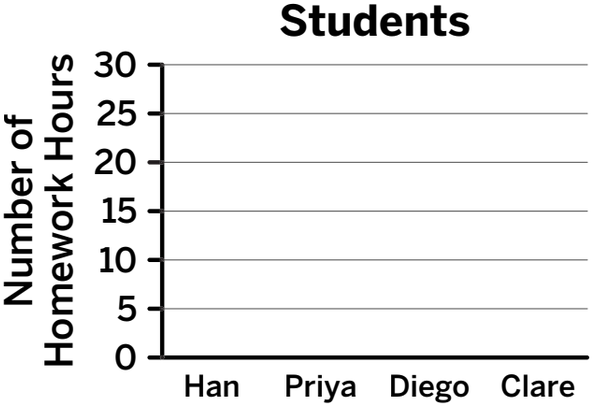
1 The table shows the number of books collected for a school book drive. Use the information from the table to create a scaled bar graph.

Item	Number
Fiction	62
Non-fiction	44
Comics	35
Magazines	50



2 The table shows the number of hours students spend on homework each month. Use the information from the table to create a scaled bar graph.

Student	Number of Homework Hours
Han	20
Priya	12
Diego	18
Clare	25



Name _____ Date _____

3 Explain why you used the scale that you did on the scaled graph.

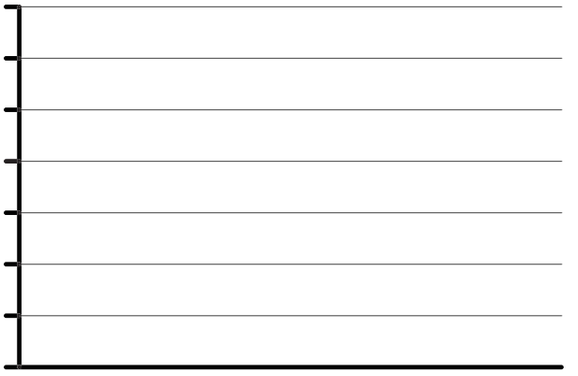
_____

_____

_____

4 The table shows the number of books read by students over the summer. If you were going to graph the data on the grid shown, which scale should you use?

Student	Number of Books Read
Han	22
Priya	50
Diego	35
Clare	12



(A) scale of 1

(B) scale of 2

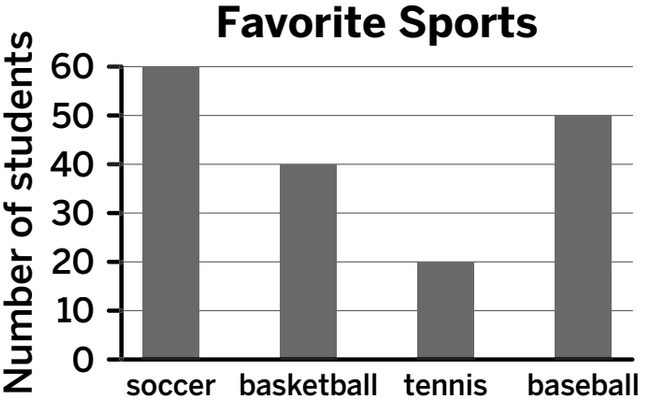
(C) scale of 5

(D) scale of 10

Name _____ Date _____

Additional Practice 1.17

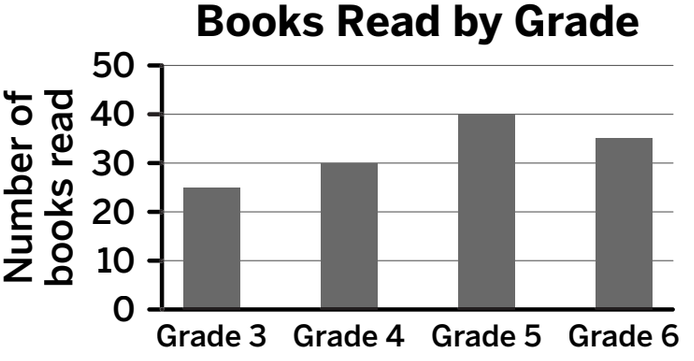
1 The scaled bar graph below shows the favorite sports of students. How many more students chose soccer than basketball?



Show or explain your thinking.

answer: _____ students

2 The scaled bar graph below shows the number of books read by students in different grades at a school. How many more books were read by Grade 5 students than Grade 3 students?

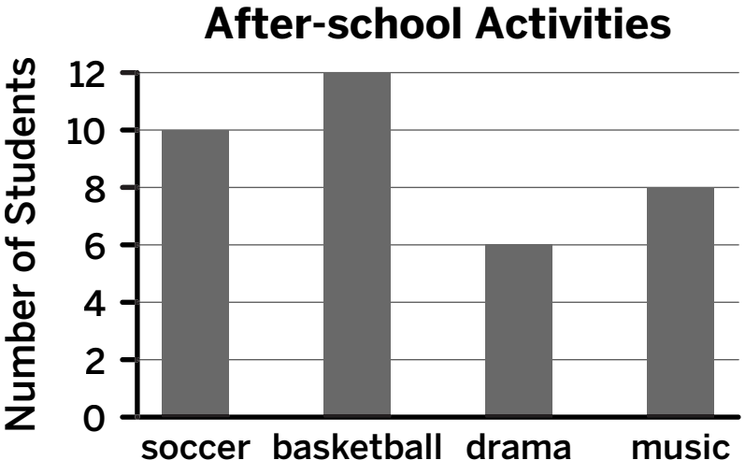


Show or explain your thinking.

answer: _____ students.

Name _____ Date _____

For Problems 3 and 4, use the scaled bar graph that shows the number of students participating in different after-school activities.



3 How many students participate in soccer and drama combined?

(A) 12 students

(B) 14 students

(C) 16 students

(D) 18 students

4 Write a question about after-school activities that can be answered using the data on the graph.

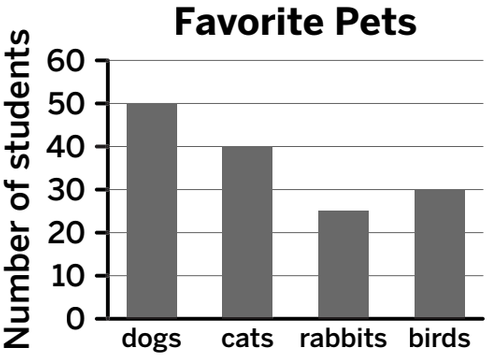
_____

_____

Name _____ Date _____

Additional Practice 1.18

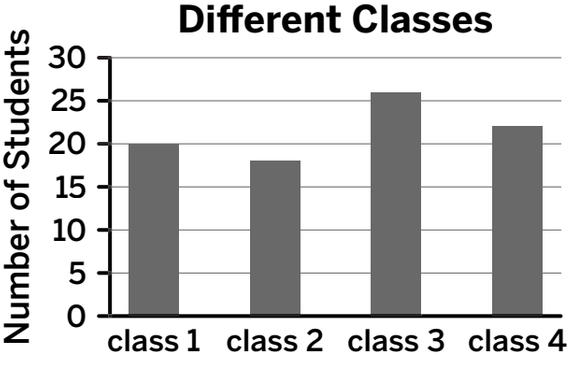
1 The scaled bar graph below shows the favorite types of pets among students. How many more students chose dogs and rabbits combined than cats?



Show or explain your thinking.

answer: _____ students.

2 The scaled bar graph shows the number of students in each Grade 5 class at a school. How many fewer students are there in Class 2 than there are in Classes 3 and 4 combined?

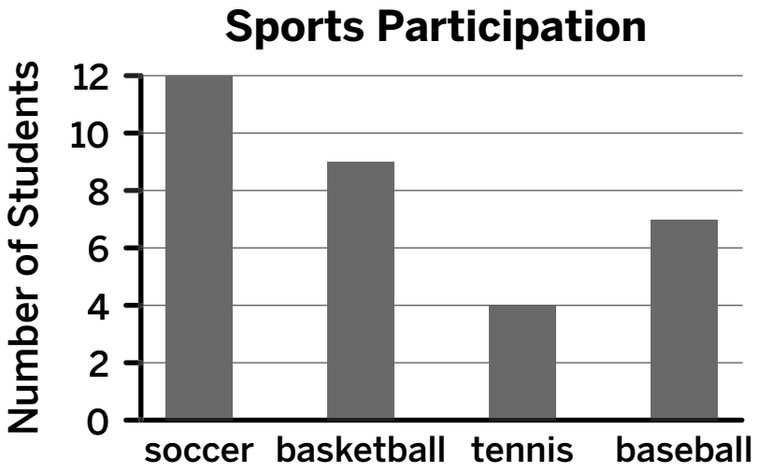


Show your thinking.

answer: _____ students.

Name _____ Date _____

3 Use the scaled bar graph below that shows the number of students participating in different sports at a school.



How many fewer students participate in soccer than in basketball and baseball combined?

(A) 5 students

(B) 3 students

(C) 4 students

(D) 1 student

Grade 3 | Unit 2

Additional Practice

Practice Problems

Name _____ Date _____

Additional Practice 2.02

1 Priya made these shapes using pattern blocks. Which shape has a greater area? Explain your thinking.

Shape X

Shape Y

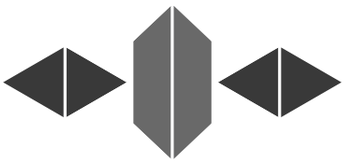
_____

_____

_____

2 Diego and Clare made these shapes using pattern blocks. Which shape has a smaller area? Explain your thinking.

Diego's shape



Clare's shape

_____

_____

_____

For Problems 3–5, determine the value of the expression.

3 4×4 _____ **4** 4×2 _____ **5** 8×4 _____

Name _____ Date _____

6 Emma arranged the following shapes using pattern blocks.

Shape X

Shape Y

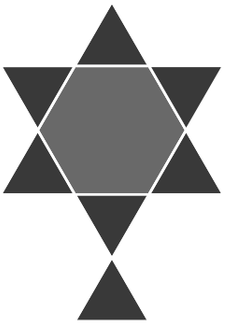
Shape Z

Which shows the order of the shapes from largest to smallest area?

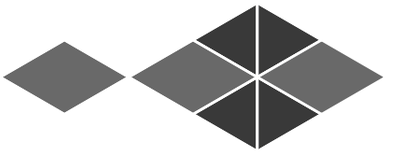
(A) X, Z, Y (B) Y, X, Z (C) X, Y, Z (D) Z, X, Y

7 Han says that Shape A has a bigger area because it has a bigger shape in the middle. Do you agree? Explain your thinking.

Shape A



Shape B

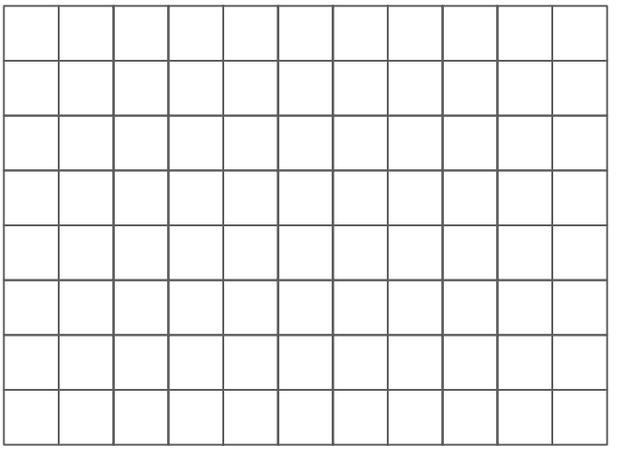


Name _____ Date _____

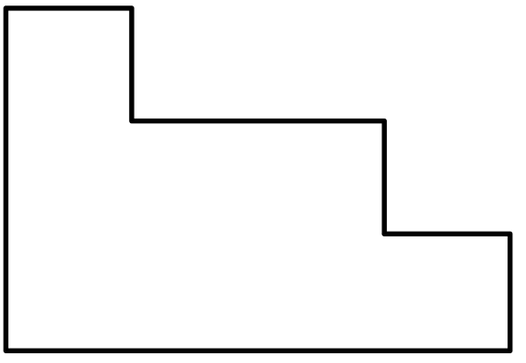
Additional Practice 2.03

1 Jada drew a rectangle to represent a garden in her backyard. Her garden has an area of 20 square units. Each square on the grid has an area of 1 square unit. Draw Emma's Garden.

Draw



2 Use square tiles to determine the area of the figure below. Explain your reasoning.



Name _____ Date _____

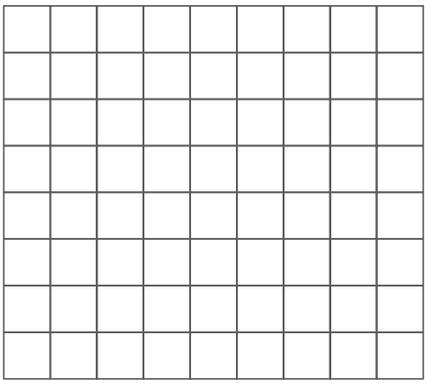
For Problems 3 and 4, determine the value of the expression.

3 8×5 _____

4 8×10 _____

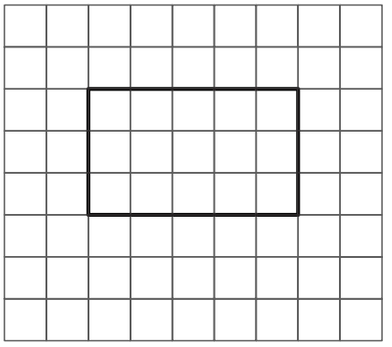
5 Each square on the grid has an area of 1 square unit. Draw a rectangle with an area of 12 square units.

Draw

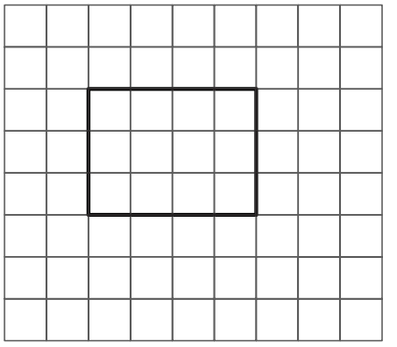


6 Each square on the grid has an area of 1 square unit. Which rectangle has an area of exactly 15 square units?

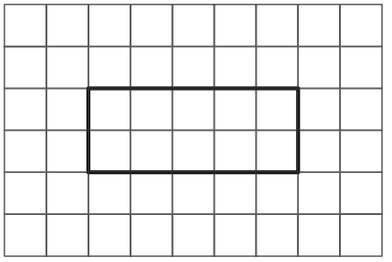
A



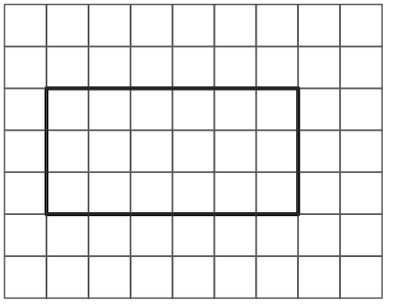
B



C



D



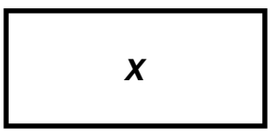
Name _____ Date _____

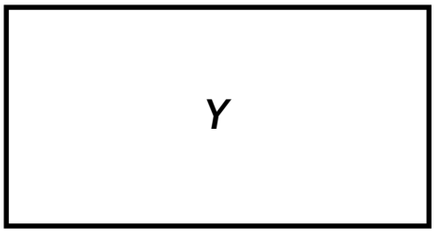
Additional Practice 2.04

For Problems 1–6, decide which unit of measurement you would use to measure the area of each object.

1. Soccer Field _____
2. Tablet Screen _____
3. Tennis Court _____
4. Kitchen Countertop _____
5. Magazine Cover _____
6. Post Card _____

7. Consider the two rectangles. One is measured in square centimeters, and the other in square inches. Which rectangle is measured in square centimeters? Which one is measured in square inches? Explain your thinking.





Name _____ Date _____

For Problems 8–11, find the value of the expression.

8 3 × 2 _____

9 10 × 5 _____

10 6 × 3 _____

11 6 × 6 _____

12 For which of the following would you use square feet to measure the area?

(A) notebook

(B) kitchen table

(C) postage stamp

(D) business card

13 Which unit would be best to measure the area of a basketball court?

(A) square centimeters

(B) square inches

(C) square feet

(D) square meters

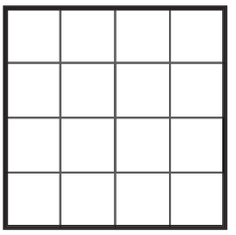
Name _____ Date _____

Additional Practice 2.05

For Problems 1 and 2, determine the area of the rectangle.

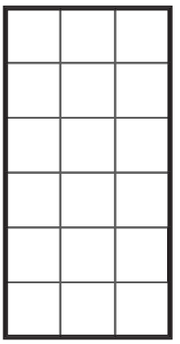
Show or explain your thinking.

1



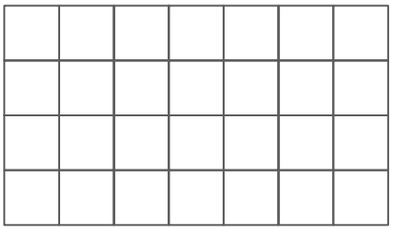
answer: _____

2



answer: _____

3 What is the area of the rectangle?



(A) 30 square units

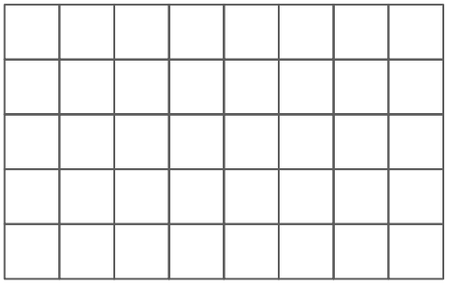
(B) 18 square units

(C) 28 square units

(D) 25 square units

Name _____ Date _____

4 What is the area of the rectangle?



(A) 32 square units

(B) 28 square units

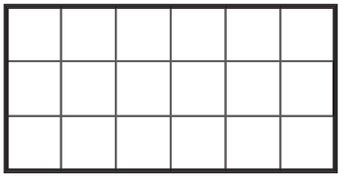
(C) 35 square units

(D) 40 square units

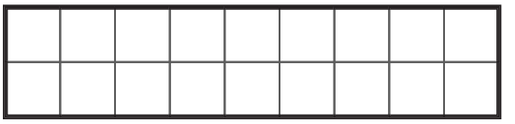
5 Which has a greater area—Rectangle A or Rectangle B?

Show or explain your thinking.

Rectangle A



Rectangle B



answer: _____

For Problems 6–9, determine the value of the expression.

6 10 × 4 _____

7 5 × 4 _____

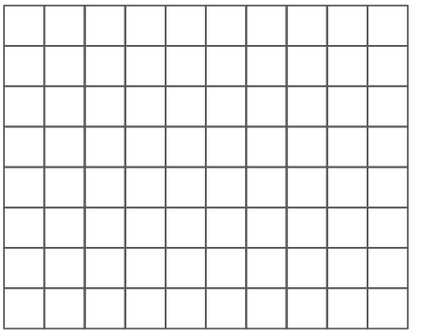
8 7 × 4 _____

9 3 × 4 _____

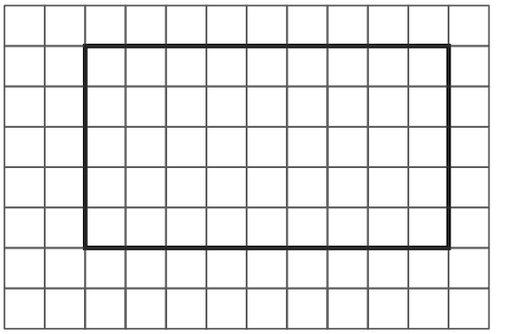
Name _____ Date _____

Additional Practice 2.06

1 Use the grid to create a rectangle whose area can be represented by the expression 6 × 7. Explain your thinking.



2 Carlos drew the rectangle shown. He said the area can be represented by the expression 4 × 9. Is he correct? If not, draw the correct rectangle. Explain your thinking.



Name _____ Date _____

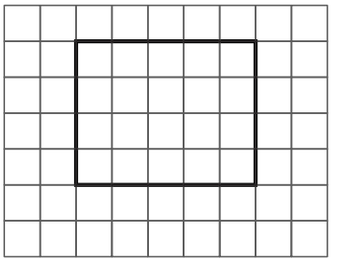
For Problems 3 and 4, determine the value of the expression.

3 2×9 _____

4 9×2 _____

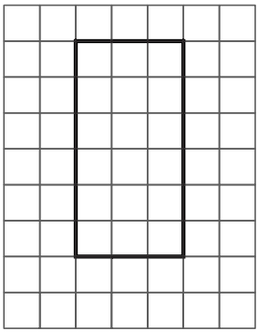
For Problems 5 and 6, write a multiplication expression that represents the area of the rectangle.

5



answer: _____

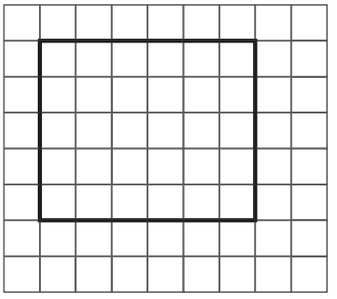
6



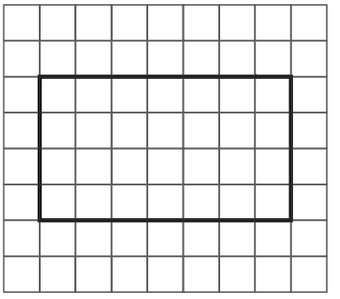
answer: _____

7 Which rectangle's area can be represented by the expression 5×6?

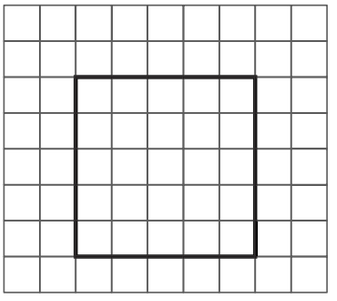
A



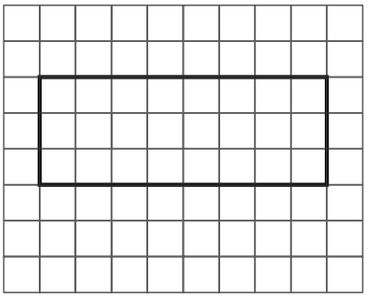
B



C



D

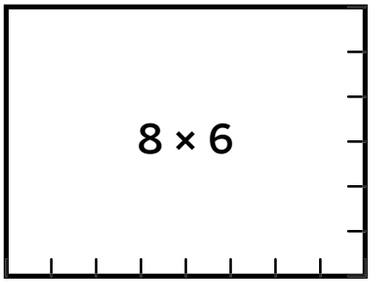


Name _____ Date _____

Additional Practice 2.07

For Problems 1–3, determine the area of the rectangle.

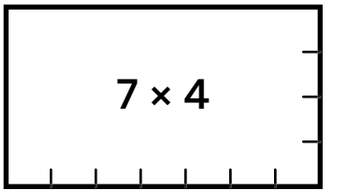
1 Each space between 2 tick marks represents 1 yard.



expression: _____

area: _____

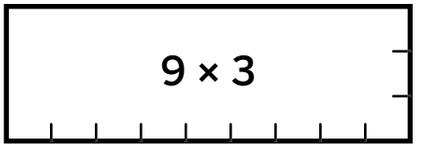
2 Each space between 2 tick marks represents 1 foot.



expression: _____

area: _____

3 Each space between 2 tick marks represents 1 millimeter.

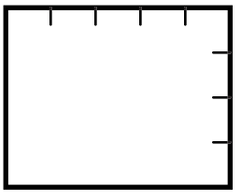


expression: _____

area: _____

Name _____ Date _____

4 Each space between tick marks represents 1 meter. Which expression represents the area of the rectangle?



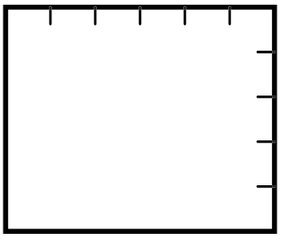
(A) 4 × 5

(B) 6 × 2

(C) 5 × 5

(D) 4 × 7

5 Each space between tick marks represents 1 yard. What is the area of the rectangle?



(A) 12 square yards

(B) 20 square yards

(C) 24 square yards

(D) 30 square yards

For Problems 6–9, find the value of the expression.

6 2 × 2 _____

7 3 × 3 _____

8 4 × 4 _____

9 5 × 5 _____

Name _____ Date _____

Additional Practice 2.08

For Problems 1 and 2, use a ruler to draw a rectangle with the given area. Then write the equation that represents the area of the rectangle.

Draw

1 The area is 24 square centimeters.

equation: _____

2 The area is 40 square centimeters.
One side length is 5 centimeters.

equation: _____

3 Use a centimeter ruler to measure the side lengths of the rectangle given. Then write an equation that represents the area of the rectangle.

answer: _____

Name _____ Date _____

4 A rectangle has an area of 24 square centimeters.
Which equation could represent the area of the rectangle?

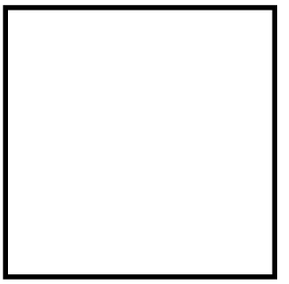
(A) $6 \times 4 = 24$

(B) $8 \times 8 = 24$

(C) $3 \times 7 = 24$

(D) $5 \times 5 = 24$

5 Use a centimeter ruler to measure the side lengths of the rectangle. Which equation represents the area of the rectangle?



(A) $5 \times 6 = 30$

(B) $4 \times 5 = 20$

(C) $6 \times 6 = 36$

(D) $6 \times 3 = 18$

For Problems 6–9, determine the value of the expression.

6 6×2 _____

7 7×2 _____

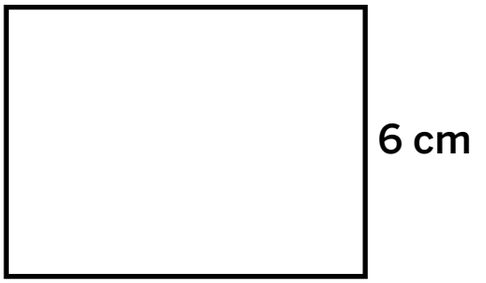
8 8×2 _____

9 9×2 _____

Name _____ Date _____

Additional Practice 2.09

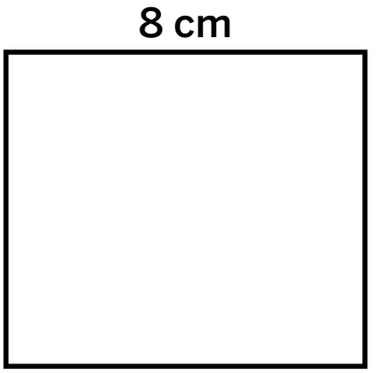
1 A note card has an area of 48 square centimeters, and the length of the shorter side is 6 centimeters. What is the length of the other side?



Show or explain your thinking.

answer: _____

2 A rectangular tile has an area of 56 square centimeters, and the length of one side is 8 centimeters. What is the length of the other side?



Show or explain your thinking.

answer: _____

Name _____ Date _____

For Problems 3–6, determine the value of the expression.

3 4×3 _____

4 2×5 _____

5 4×6 _____

6 9×4 _____

7 Han has 36 quilt squares, each 1 foot on each side. He wants to use all of them to make a rectangular quilt. The longest side cannot be more than 9 feet. What are the possible side lengths of Han's quilt?

Show or explain your thinking.

answer: _____

8 A rectangular garden has an area of 42 square feet, and the length of the longer side is 7 feet. What is the length of the other side?

(A) 5 feet

(B) 6 feet

(C) 7 feet

(D) 8 feet

9 Jada has 24 square paving stones, each 1 foot on each side. She wants to use all of them to make a rectangular patio. Select *all* the possible side lengths.

(A) 6 feet and 4 feet

(B) 3 feet and 8 feet

(C) 4 feet and 7 feet

(D) 2 feet and 12 feet

(E) 5 feet and 8 feet

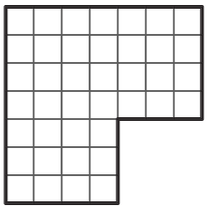
Name _____ Date _____

Additional Practice 2.10

For Problems 1–3, determine the area of the figure in square units.

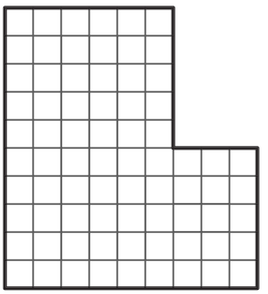
Show or explain your thinking.

1



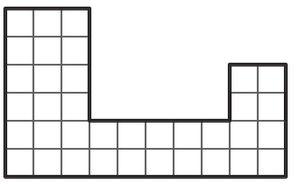
answer: _____

2



answer: _____

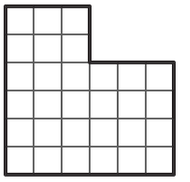
3



answer: _____

Name _____ Date _____

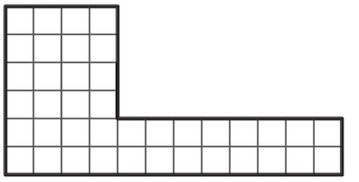
4 What is the area of the figure?



(A) 30 square units (B) 28 square units

(C) 25 square units (D) 20 square units

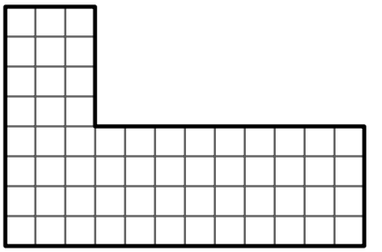
5 What is the area of the figure?



(A) 36 square units (B) 42 square units

(C) 48 square units (D) 40 square units

6 Han said that he can decompose a figure to find the area. Explain how he does this and give an example.



For Problems 7 and 8, determine the value of the expression.

7 $6 \times 3 =$ _____

8 $5 \times 7 =$ _____

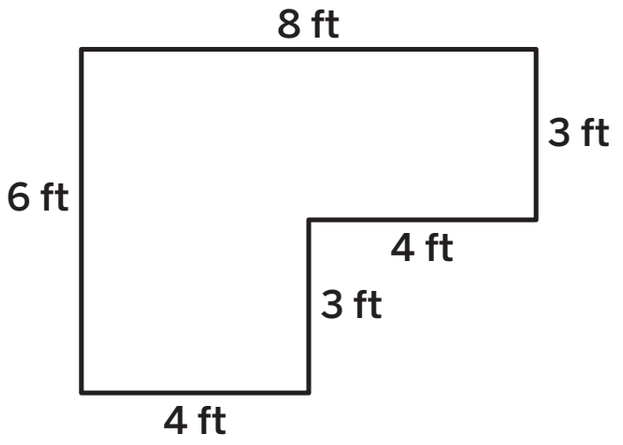
Name _____ Date _____

Additional Practice 2.11

For Problems 1 and 2, determine the area of the figure.

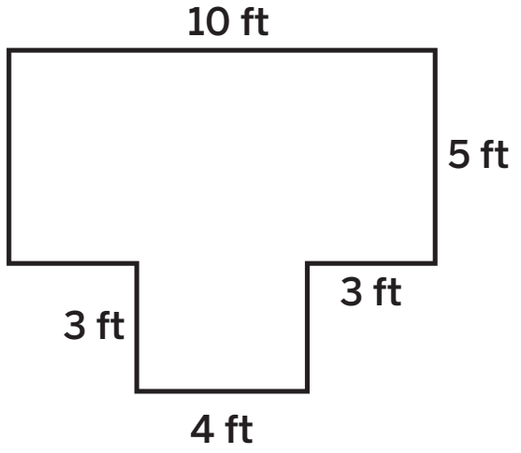
Show or explain your thinking.

1



answer: _____

2

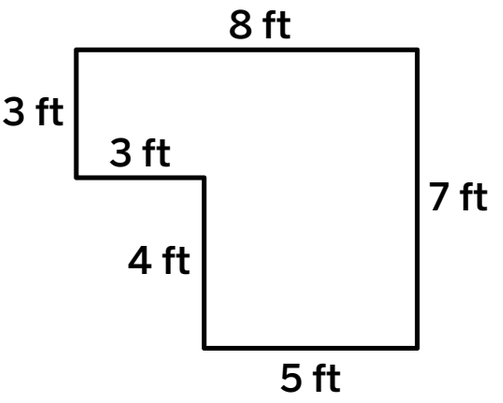


answer: _____

Name _____ Date _____

The figure shown represents a patio. Use the figure for Problems 3 and 4.

Priya needs to determine how much tile to buy.



3 Write an expression to determine the area of the patio.

answer: _____

4 Calculate the area of the patio.

Show your thinking.

answer: _____

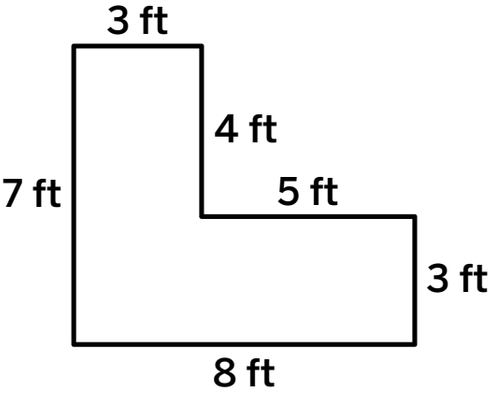
5 What is the area of the figure?

(A) 44 square feet

(B) 36 square feet

(C) 54 square feet

(D) 50 square feet



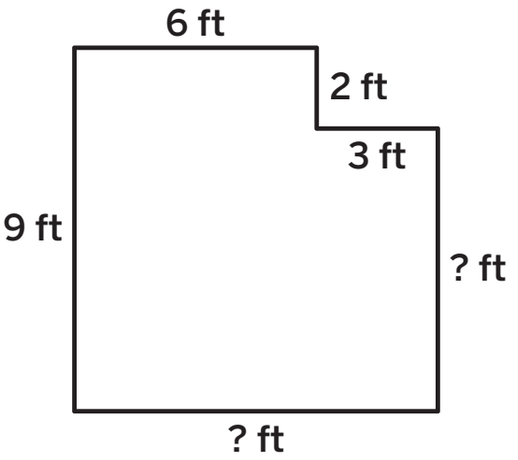
Name _____ Date _____

Additional Practice 2.12

For Problems 1–3, determine the area of the figure.

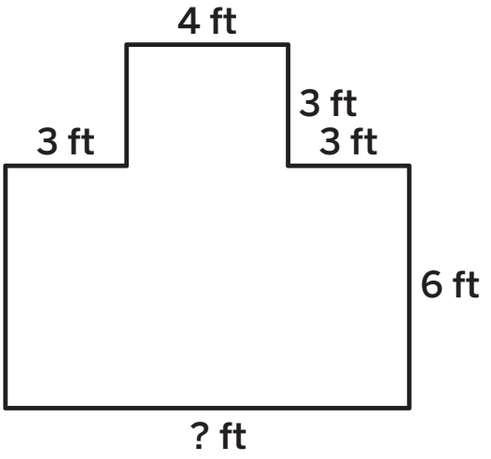
Show or explain your thinking.

1



answer: _____

2

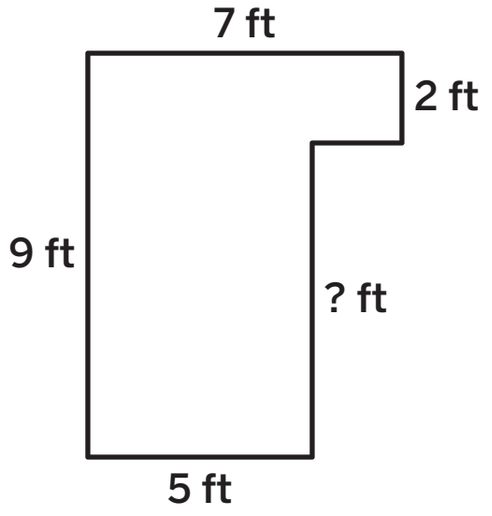


answer: _____

Name _____ Date _____

Show or explain your thinking.

3



answer: _____

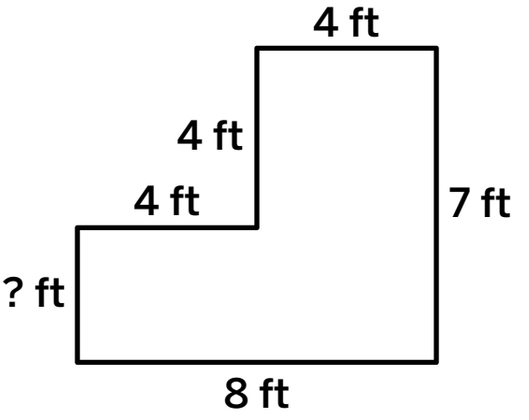
4 What is the area of the figure?

(A) 33 square feet

(B) 40 square feet

(C) 48 square feet

(D) 56 square feet



Name _____ Date _____

Additional Practice 2.13

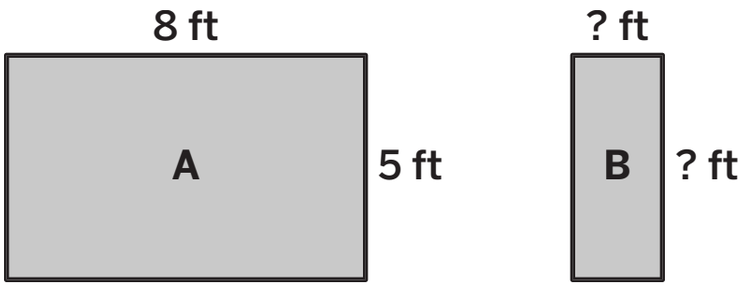
1 Clare wants to combine Rectangles A and B into 1 figure that has a total area of 40 square centimeters. What could the dimensions of Rectangle B be?

Show or explain your thinking.

answer: _____

2 Suppose you combine Rectangles A and B into 1 figure that has a total area of 50 square feet. What could the dimensions of Rectangle B be?

Show or explain your thinking.

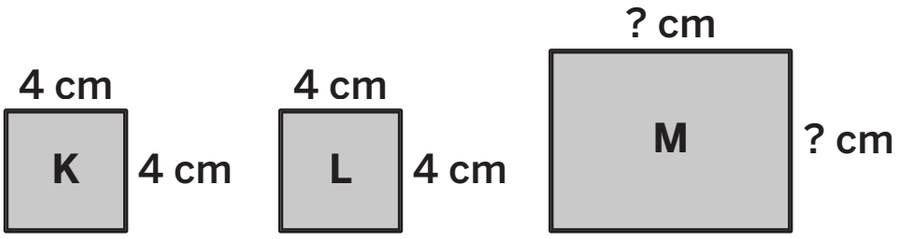


answer: _____

Name _____ Date _____

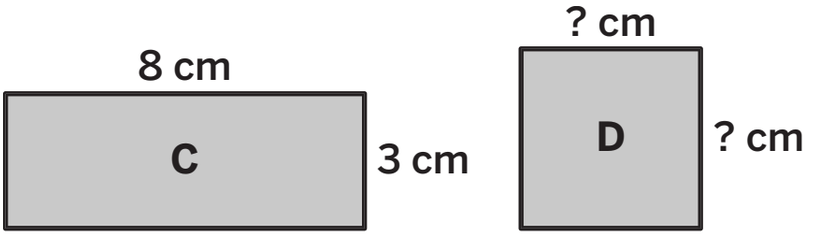
3 Jada combines Rectangles K, L, and M into 1 figure that has a total area of 80 square centimeters. What could the dimensions of Rectangle M be?

Show or explain your thinking.



answer: _____

4 Diego wants to combine Rectangles C and D into 1 figure that has a total area of 40 square centimeters. What are the dimensions of Rectangle D?



(A) 2 cm by 2 cm

(B) 3 cm by 3 cm

(C) 4 cm by 4 cm

(D) 5 cm by 5 cm

Grade 3 | Unit 3

Additional Practice

Practice Problems

Name _____ Date _____

Additional Practice 3.02

For Problems 1–2, determine the value of the expression.

1 Continue the pattern by adding 101.

325, _____, _____, _____, _____

2 Continue the pattern by adding 99.

216, _____, _____, _____, _____

For Problems 3–7, determine the value of the expression.

3 512 + 101 = _____

4 789 + 101 = _____

5 654 + 99 = _____

6 432 + 99 = _____

7 275 + 101 = _____

Name _____ Date _____

8 **Continue the pattern by adding 101.**

150, _____, _____, _____, _____, _____

Name _____ Date _____

Additional Practice 3.03

For Problems 1 and 2, determine the sum in a way that makes sense to you.

Show or explain your thinking.

1 519 + 382

answer: _____

2 458 + 276

answer: _____

Name _____ Date _____

Determine the sum.

Show or explain your thinking.

3 756 + 184

answer: _____

4 625 + 132

answer: _____

5 354 + 223

answer: _____

Name _____ Date _____

Additional Practice 3.04

For Problems 1 and 2, add by place to determine the sum.

Show your thinking.

1 467 + 235

answer: _____

2 532 + 148

answer: _____

Name _____ Date _____

Determine the sum.

Show or explain your thinking.

3 475 + 246

answer: _____

4 How does seeing the numbers written in expanded form help you add?

_____

_____

_____

5 Add by place to determine the sum 230 + 127.

Show your thinking.

answer: _____

Name _____ Date _____

Additional Practice 3.05

1 Determine the sum 345 + 278 using an algorithm of your choice.

Show your thinking.

answer: _____

The table below shows the typical yearly snowfall in centimeters for several of the snowiest U.S. cities. Use the table for Problems 2 and 3.

City	Snowfall (cm)
Buffalo, NY	225
Syracuse, NY	289
Rochester, NY	244

2 What is the combined typical yearly snowfall for Rochester and Buffalo?

Show your thinking.

answer: _____

Name _____ Date _____

3 What is the combined typical yearly snowfall for Buffalo and Syracuse?

Show your thinking.

answer: _____

4 How are adding using the expanded form algorithm and partial sums algorithm similar? How are they different?

Name _____ Date _____

Additional Practice 3.06

1 Use algorithm of your choice to calculate the sum 219 + 645.

Show your thinking.

answer: _____

The table below shows the average annual snowfall in inches for several U.S. cities from 1981 to 1990. Use the table for Problems 2 and 3.

City	Snowfall (in.)
Denver, CO	85
Mammoth Lakes, CA	312
Aspen, CO	190
Lake Tahoe, CA	225

Show your thinking.

2 What was the combined snowfall for Aspen and Lake Tahoe from 1981 to 1990?

answer: _____

3 What was the combined snowfall for Mammoth Lakes and Aspen from 1981 to 1990?

answer: _____

Name _____ Date _____

4 Use an algorithm of your choice to calculate the sum 762 + 145.

Show your thinking.

answer: _____

5 What is the next step of this algorithm?

$$\begin{array}{r} {\scriptstyle 1} \\ 428 \\ +\,153 \\ \hline 81 \end{array}$$

(A) Compose a ten from the ones place.

(B) Compose a hundred from the tens place.

(C) Add the tens.

(D) Add the hundreds.

6 What is the value of 518 + 176?

(A) 704 (B) 694 (C) 724 (D) 602

Name _____ Date _____

Additional Practice 3.07

1 What is the value of 428 + 235?

Ⓐ 553 Ⓑ 663 Ⓒ 693 Ⓓ 603

For Problem 2–4, use an algorithm of your choice to determine the sum.

Show your thinking.

2 438 + 276

answer: _____

3 456 + 234 + 189

answer: _____

4 534 + 287

answer: _____

Name _____ Date _____

5 Mark was adding 376 + 145. His work is shown. Complete his work.

Show your thinking.

```
    1
  3 7 6
+ 1 4 5
      1
```

answer: _____

6 What is the value of the problem?

```
  5 3 6
+ 2 1 9
-------
```

Ⓐ 727 Ⓑ 827 Ⓒ 855 Ⓓ 755

7 Write the value that makes the equation true.

424 + 112 + 305 = _____

Name _____ Date _____

Additional Practice 3.08

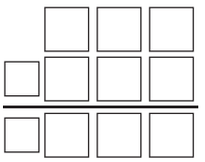
1 Here are your numbers.

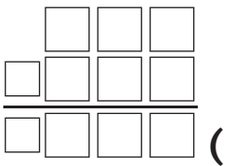
My numbers

3 1 4 2 4 3

How would you arrange your numbers to make the *greatest* sum? The *least* sum?

Show your thinking.

 **(greatest sum)**

 **(least sum)**

2 Diego says a reasonable estimate for 472 + 289 is 600. Do you agree with Diego?

_____

_____

_____

3 What is a reasonable estimate for 476 + 328?

Show your thinking.

answer: _____

Name _____ Date _____

4 Determine the sum 476 + 328.

Show your thinking.

answer: _____

5 Identify an addition expression that does not have 500 as a reasonable estimate for the sum?

(A) 245 + 260

(B) 318 + 182

(C) 399 + 215

(D) 265 + 240

6 How much is the estimated value of 538 + 269?

(A) 700 (B) 800 (C) 600 (D) 750

7 Jada's class baked 267 muffins for a school event. Han's class baked 325 muffins. What is a reasonable estimate for the total number of muffins baked for the event?

_____

Name _____ Date _____

Additional Practice 3.09

For Problems 1 and 2, evaluate the expression in any way that makes sense to you.

Show your thinking.

1 684 – 357

answer: _____

2 923 – 468

answer: _____

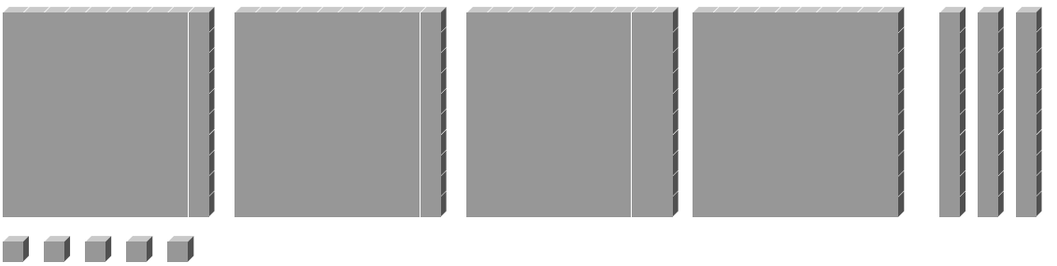
3 What is the value of 356 – 214?

(A) 122 (B) 133 (C) 142 (D) 112

Name _____ Date _____

4 The base-ten diagram represents 435. Use the diagram to evaluate the expression 435 – 218.

Show your thinking.



answer: _____

5 Your class is collecting books for the holidays. Your class collects 285 books and your friend's class collects 179 books. How many more books does your class collect than your friend's class?

_____

6 A young elephant weighs 476 pounds. A jaguar weighs 308 pounds less than the elephant. How much does the jaguar weigh?

_____

Name _____ Date _____

Additional Practice 3.10

For Problems 1–3, evaluate the expression using the expanded form algorithm.

Show your thinking.

1 753 – 428

answer: _____

2 542 – 319

answer: _____

3 What is the next step when completing this problem?

$$\begin{array}{rrrrr} & & 60 & & 15 \\ & 400 & + & \cancel{70} & + & \cancel{5} \\ - & 200 & + & 30 & + & 8 \\ \hline \end{array}$$

(A) Subtract 200 from 400.

(B) Decompose a ten.

(C) Subtract 60 from 30 in the tens place.

(D) Subtract 8 from 15 in the ones place.

Name _____ Date _____

4 Ida was subtracting 385 – 167. Her work is shown. Complete her work.

Show your thinking.

answer: _____

5 What is the value of 536 – 244?

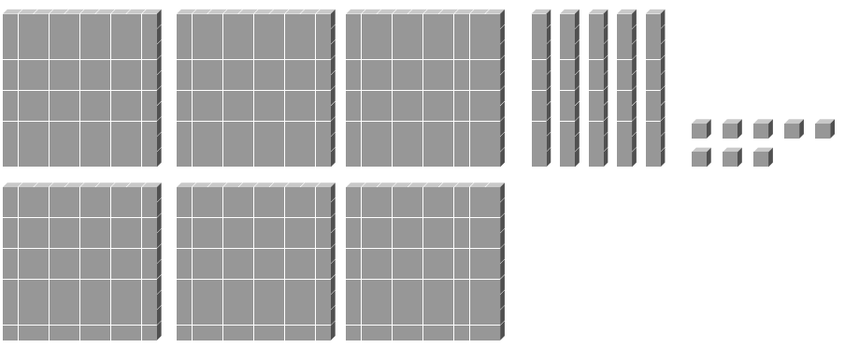
(A) 200 + 90 + 2

(B) 300 + 90 + 2

(C) 200 + 70 + 2

(D) 300 + 70 + 2

6 Use the model below to show the subtraction equation 658 – 415.



answer: _____

Name _____ Date _____

Additional Practice 3.11

For Problems 1 and 2, evaluate the difference using an algorithm of your choice.

Show your thinking.

1 529 – 249

answer: _____

2 736 – 427

answer: _____

3 Han was subtracting 528 – 246 using the standard algorithm. His work is shown. Complete his work.

Show your thinking.

$$\begin{array}{r} 5\ 2\ 8 \\ -\ 2\ 4\ 6 \\ \hline \end{array}$$

answer: _____

Name _____ Date _____

4 What is the value of 478 – 259?

(A) 239 (B) 219 (C) 493 (D) 249

5 What is the next step when completing this problem?

$$\begin{array}{r} 349 \\ -178 \\ \hline \end{array}$$

(A) Subtract 8 from 9 in the ones place.

(B) Decompose a group of 100.

(C) Subtract 7 from 14 in the tens place.

(D) Decompose a group of 10.

For Problems 6 and 7, solve using standard algorithms.

Show your thinking.

6 What is the next step when completing this problem?

$$\begin{array}{r} 658 \\ -174 \\ \hline \end{array}$$

7 What is the next step when completing this problem?

$$\begin{array}{r} 327 \\ -218 \\ \hline \end{array}$$

Name _____ Date _____

Additional Practice 3.12

For Problems 1 and 2, calculate the difference using an algorithm of your choice. Use addition to check your work.

Show your thinking.

1 842 – 316

answer: _____

2 523 – 436

answer: _____

Name _____ Date _____

3 Clare was subtracting 344 – 168. Her work is shown. Is her work correct? Explain your thinking.

$$\begin{array}{r} 2\ 14\ 14 \\ \cancel{3}\ \cancel{4}\ \cancel{4} \\ -\ 1\ 6\ 8 \\ \hline 1\ 8\ 6 \end{array}$$

_____

_____

_____

_____

4 What is the value of 523 – 467?

(A) 50 + 6

(B) 100 + 50 + 6

(C) 60 + 6

(D) 50 + 7

5 What is the value of 684 – 329?

(A) 345 (B) 355 (C) 839 (D) 245

Name _____ Date _____

Additional Practice 3.13

For Problems 1 and 2, evaluate the expression using an algorithm.

Show your thinking.

1 703 – 462

answer: _____

2 640 – 466

answer: _____

Name _____ Date _____

3 Jada determined the value of 502 – 289. Her work is shown. Is her work correct? Explain your thinking.

$$
\begin{array}{rcrcr}
 & & 110 & & \\
 & & \cancel{10} & & 10 \\
\cancel{5}00 & + & \cancel{2} & + & \cancel{0} \\
-\ 200 & + & 80 & + & 9 \\
\hline
300 & + & 30 & + & 1
\end{array}
$$

_____

_____

_____

4 What is the value of 620 – 385?

(A) 245 (B) 235 (C) 262 (D) 226

5 What is the value of 407 – 228?

(A) 179 (B) 171 (C) 182 (D) 175

Name _____ Date _____

Additional Practice 3.14

For Problems 1–3, evaluate the expression using an algorithm or strategy of your choice.

Show or explain your thinking.

1 632 – 214

answer: _____

2 708 – 329

answer: _____

3 842 – 629

answer: _____

Name _____ Date _____

4 Find the difference 540 – 326.

answer: _____

5 What is a reasonable estimate for the difference 648 – 423?

answer: _____

6 What is the value of 685 – 294?

Ⓐ 391 Ⓑ 400 Ⓒ 490 Ⓓ 396

7 Which is a reasonable estimate for the value of 721 – 512?

Ⓐ 200 Ⓑ 300 Ⓒ 250 Ⓓ 400

8 Estimate and match the difference.

944 – 29 is about	
926 – 628 is about	
894 – 435 is about	

Name _____ Date _____

Additional Practice 3.15

1 Determine the nearest hundred to each number.

Number	572	48	349	760	125
Nearest hundred					

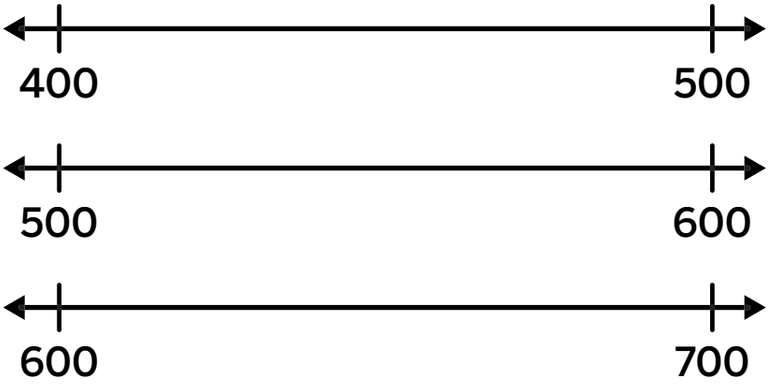
2 Choose one of the numbers from the list below. What is its nearest hundred? You can show your thinking on the number line if it helps.

162 478 349 225

Show or explain your thinking.

Name _____ Date _____

3 Identify which number line can be used to locate 674. Then, plot and label 674 on that number line.



4 What is the nearest hundred to 674?

answer: _____

For Problems 5–8, round each number to the nearest hundred.

5 511 = _____

6 856 = _____

7 326 = _____

8 459 = _____

9 There are 869 students at Tom's middle school. To the nearest hundred, about how many students are there?

_____

Name _____ Date _____

Additional Practice 3.16

For problems 1 and 2:

- **Complete the table by writing the two hundreds and the two tens between which the number is located.**
- **Circle the *nearest hundred* and the *nearest ten* to the number.**

1 64

Hundreds		
Tens		

2 186

Hundreds		
Tens		

For Problems 3 and 4, find the nearest ten and the nearest hundred to the number.

3 34

Nearest ten: _____

Nearest hundred: _____

Name _____ Date _____

4 747

Nearest ten: _____

Nearest hundred: _____

For Problems 5–8, round each number to the nearest ten.

5 78 _____

6 57 _____

7 44 _____

8 38 _____

9 Which number has 500 as the nearest hundred?

(A) 449 (B) 551 (C) 488 (D) 430

10 Which number has 120 as the nearest ten?

(A) 118 (B) 126 (C) 113 (D) 129

Name _____ Date _____

Additional Practice 3.17

1 The table below shows the number of people who visited a local zoo each day for one week. Complete the table by rounding each number to the nearest hundred and nearest ten.

Day	Number of People	Nearest Hundred	Nearest Ten
Sunday	455		
Monday	243		
Tuesday	150		
Wednesday	89		
Thursday	35		
Friday	176		
Saturday	329		

2 Round 275 to the nearest ten. _____

3 Round 275 to the nearest hundred. _____

4 Round 162 to the nearest hundred. _____

5 Round 162 to the nearest ten. _____

Name _____ Date _____

6 Which number would round to 600 when rounded to the nearest hundred?

(A) 650 (B) 545 (C) 589 (D) 515

7 Which number would round to 280 when rounded to the nearest ten?

(A) 274 (B) 275 (C) 272 (D) 286

For Problems 8 and 9, determine the value of the expression.

8 412 + 237 = _____

9 528 + 174 = _____

Name _____ Date _____

Additional Practice 3.18

1 Here are some clues about a mystery number:

- The number is odd.
- To the nearest hundred, the number rounds to 500.
- To the nearest ten, the number rounds to 510.

Write *all* the numbers that the mystery number could be.

_____

2 Han thinks of a mystery number and gives these clues:

- The number is even.
- The number rounded to the nearest ten is 350.
- The number is between 340 and 360.

Write down all the numbers that the mystery number could be.

_____

3 When rounded to the nearest ten, what are all the numbers that would round to 50?

_____

4 When rounded to the nearest hundred, what are all the numbers that would round to 500?

_____

Name _____ Date _____

5 Select *all* the numbers that are odd and would round to 250 when rounded to the nearest ten.

(A) 251 (B) 248 (C) 252 (D) 249 (E) 255

6 Select *all* the numbers that are even and would round to 400 when rounded to the nearest hundred.

(A) 365 (B) 350 (C) 412 (D) 388 (E) 459

For Problems 7–10, determine the value of the expression.

7 312 + 245 = _____

8 207 – 159 = _____

9 365 – 192 = _____

10 428 + 136 = _____

Name _____ Date _____

Additional Practice 3.19

1 The table shows the number of students who plan to attend the school's Science Fair. Make a reasonable estimate for how many more students in Grades 6 and 7 combined plan to attend than students in Grade 8.

Grade	Number of Students
6	214
7	176
8	245

Show or explain your thinking.

answer: _____

Name _____ Date _____

2 There are 825 students in a school. 195 students are in the library, 160 are in the gym, and the rest are in class. Which is the best estimate for how many students are in class?

(A) 400 students
(B) 470 students
(C) 500 students
(D) 600 student

3 There are 812 students at a school. 485 students are in the auditorium, and the rest are in class. Priya estimates that 400 students are in class. Do you agree with Priya's estimate? Explain your thinking.

_____

_____

_____

_____

4 A store display has 328 red marbles, 210 green marbles, and 265 blue marbles. Which is the best estimate for the total number of marbles the store has?

(A) 900 marbles
(B) 750 marbles
(C) 800 marbles
(D) 700 marbles

For Problems 5 and 6, determine the value of the expression.

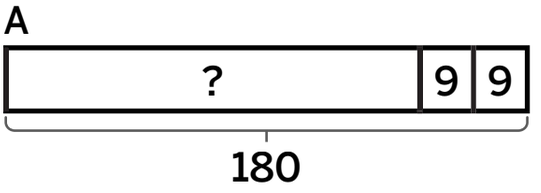
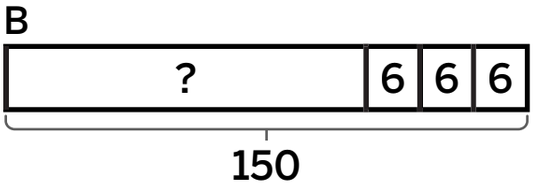
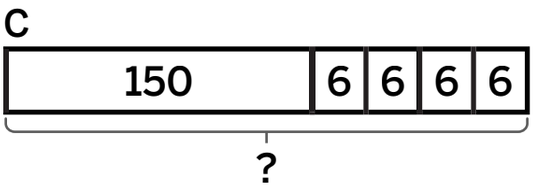
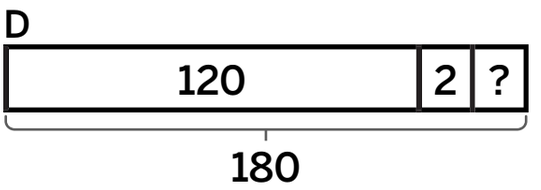
5 162 + 238 = _____

6 216 + 124 = _____

Name _____ Date _____

Additional Practice 3.20

1 Match each diagram with the equation it represents.

Diagram	Equation
A 	_____ ? + (3 × 6) = 150
B 	_____ 120 + (2 × ?) = 180
C 	_____ ? + (2 × 9) = 180
D 	_____ 150 + (4 × 6) = ?

2 Jada has a collection of 275 stickers. Her friend gives her 95 more. Then, she gives 40 stickers to her younger sister.

How many stickers does Jada have now?

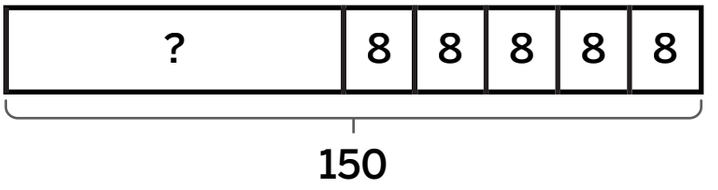
Which equation represents the situation? Explain your thinking.

(A) 275 + 95 + 40 = ?

(B) 275 + 95 – 40 = ?

Name _____ Date _____

3 Select *all* the equations that represent the tape diagram.



(A) 150 + (5 × 8) = ?

(B) ? + (5 × 8) = 150

(C) 150 – ? = (5 × 8)

(D) 150 – (5 × 8) = ?

(E) 150 = (8 + 8 + 8 + 8 + 8) + ?

For Problems 4–7, determine the value of the expression.

4 320 – 175 = _____

5 450 + 128 = _____

6 275 – 102 = _____

7 260 + 140 = _____

Name _____ Date _____

Additional Practice 3.21

For Problems 1 and 2, determine the value of the expression.

1 507 – 128 = _____

2 215 + 167 = _____

Han had 320 trading cards. He bought 6 more packs of cards, and each pack contains 12 cards. How many cards does Han have now? Use the situation for Problems 3–5.

3 Write an equation to represent the situation. Use a letter for the unknown value.

_____

Show or explain your thinking.

4 What is a reasonable estimate for the number of cards Han has now?

answer: _____

5 Determine the exact number of cards Han has now.

answer: _____

Name _____ Date _____

There are 300 pencils in a large box in the art room. 6 students each take 8 pencils from the box. How many pencils are left in the box? Use the situation for Problems 6 and 7.

Show or explain your thinking.

6 Write an equation to represent the situation. Use a letter for the unknown value.

equation:

_____

7 Determine the number of pencils left in the box.

answer:

_____

8 Clare bought 135 flowers. She buys 3 more packs of flowers. Each pack has 5 flowers. How many flowers does Clare have now?

(A) 140 flowers

(B) 150 flowers

(C) 155 flowers

(D) 160 flowers

9 A librarian has 175 books. She buys 4 more sets of books, and each set contains 6 books.

If b represents the number of books she has now, which equation represents the situation?

(A) $175 + (4 \times 6) = b$

(B) $b + (4 \times 6) = 175$

(C) $175 - (4 \times 6) = b$

(D) $b - (4 \times 6) = 175$

Name _____ Date _____

Additional Practice 3.22

1 A baker has 360 scones. In the morning, 9 customers each bought 5 scones. How many scones are remaining?

Show or explain your thinking.

answer: _____

2 A library wants to buy 10 science books, each costing $9, and a reference book set costing $299 How much money would all the books cost?

Show or explain your thinking.

answer: _____

For Problems 3 and 4, determine the value of the expression.

3 258 + 164 = _____

4 349 + 251 = _____

Name _____ Date _____

5 A gym charges a sign-up fee of $120, and each month costs $25. Which problem requires 2 steps to solve?

(A) What would be the cost for 2 months if there was no sign-up fee?

(B) What is the total cost for 1 month of membership?

(C) What is the sign-up fee for 3 people?

(D) What would the total cost be after 5 months of membership?

6 Diego wants to buy an art kit that costs $120. He also wants to buy 5 brushes that each cost $8. What is the total cost of the art kit and the brushes?

(A) $140 (B) $160 (C) $100 (D) $180

For Problems 7 and 8, determine the nearest ten and the nearest hundred for the number.

7 63

Nearest ten: _____

Nearest hundred: _____

8 104

Nearest ten: _____

Nearest hundred: _____

Grade 3 | Unit 4

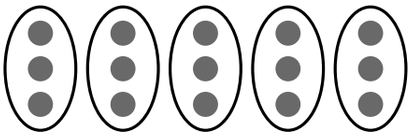
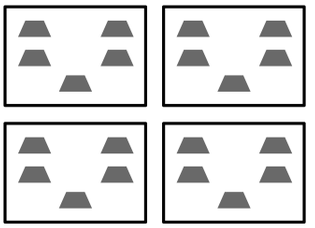
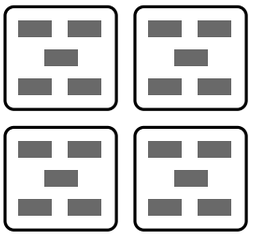
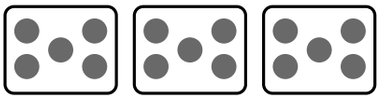
Additional Practice

Practice Problems

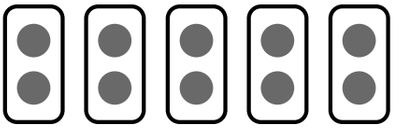
Name _____ Date _____

Additional Practice 4.02

For Problems 1–4, match the drawing with the division problem it represents.

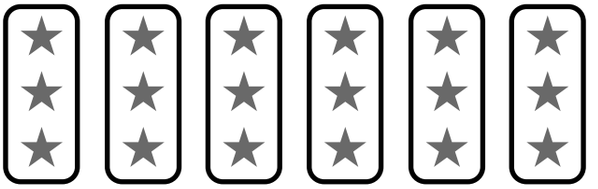
	Drawing	Division Problems
1		_____ There are 20 apples. There are 5 apples in each basket. How many baskets of apple are there?
2		_____ There are 15 oranges. There are 3 oranges in each basket. How many baskets of oranges are there?
3		_____ There are 15 bananas. There are 5 bananas in each basket. How many baskets of bananas are there?
4		_____ There are 20 cherries. There are the same number of cherries in 4 baskets. How many cherries are in each basket?

5 Look at the drawing. Write a division problem, it could represent.



Name _____ Date _____

6 Which of the following problem matches the drawing?



(A) There are 18 people. There are the same number of people on 3 teams. How many people are on each team?

(B) There are 18 people. There are 6 people on each team. How many teams are there?

(C) There are 18 people. There are the same number of people on 5 teams. How many people are on each team?

(D) There are 18 people. There are 3 people on each team. How many teams are there?

For Problems 7 and 8, match the expression with the situation it represents.

$24 \div 8$	$24 \div 6$

7 A teacher has 24 pencils and distributes them equally among 8 students. How many pencils does each student receive?

_____

8 A baker has 24 cookies and wants to pack them into boxes, placing 6 cookies in each box. How many boxes does she need?

_____

Name _____ Date _____

Additional Practice 4.03

1 Clare has 36 marbles. She places 6 marbles in each row. How many rows of marbles does Clare make?

(A) 5 rows (B) 6 rows (C) 30 rows (D) 42 rows

For Problems 2 and 3, solve the story problem and write a division equation to represent it.

Show your thinking.

2 A baker has 24 oat muffins. She places 4 oat muffins in each box. How many boxes of oat muffins does the baker have?

answer: _____ **equation:** _____

3 Priya has 48 beads. She makes 6 bracelets, each with the same number of beads. How many beads are on each bracelet?

answer: _____ **equation:** _____

Name _____ Date _____

4 Han has 30 crayons. Each student needs 5 crayons. Han makes 5 groups of crayons, and places 1 crayon in each group until the crayons are gone. Is Han's method, correct? Explain your thinking.

_____

_____

_____

_____

_____

5 Diego has 72 apples. He places them into 9 baskets with the same number of apples in each basket. How many apples are in each basket?

(A) 6 apples (B) 8 apples (C) 63 apples (D) 81 apples

6 You have 20 stickers to share with 4 of your friends. How many stickers does each person get?

Show your thinking.

answer: _____ **equation:** _____

Name _____ Date _____

Additional Practice 4.04

For Problems 1–4, determine the quotient.

Show or explain your thinking.

1 16 ÷ 4 = _____

2 40 ÷ 5 = _____

3 18 ÷ 2 = _____

4 27 ÷ 3 = _____

Name _____ Date _____

5 Which division equation represents the story problem? 48 marbles are arranged into 8 equal groups. How many marbles are in each group?

(A) 48 ÷ 6 = 8

(B) 48 ÷ 8 = 6

(C) 48 ÷ 4 = 12

(D) 48 ÷ 12 = 4

6 There were 56 blueberries in a jar. Each person took 7 blueberries. How many people took blueberries?

(A) 6 people

(B) 8 people

(C) 49 people

(D) 63 people

For Problems 7 and 8, create a drawing to represent the equation.

Draw

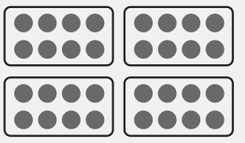
7 36 ÷ 4 = 9

8 30 ÷ 5 = 6

Name _____ Date _____

Additional Practice 4.05

1 Complete each row of the table. Use a letter to represent the unknown value.

Story Problem	Drawing/ Diagram	Multiplication Equation	Division Equation
There are 40 bananas in bunches. Each bunch has 8 bananas. How many bunches are there?			$40 \div 8 = b$
Diego has 36 marbles. He divides them equally into 6 jars. How many marbles are in each jar?		$6 \times m = 36$	
There are 32 books on 4 shelves. Each shelf has the same number of books. How many books are on each shelf?			$32 \div 4 = s$

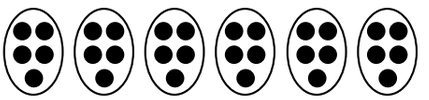
2 There are 30 oranges in crates. Each crate has 6 oranges. How many crates of oranges are there? Select *all* the correct representations of the problem.

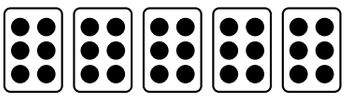
A $6 \div c = 30$

B $c \times 6 = 30$

C $30 \times c = 6$

D $30 \div 6 = c$

E 

F 

Name _____ Date _____

3 Write a division equation and a multiplication equation to represent the story problem. Use a letter to represent the unknown value.

Clare has 42 pencils. She puts the same number of pencils into each of 6 boxes. How many pencils are in each box?

division equation: _____

multiplication equation: _____

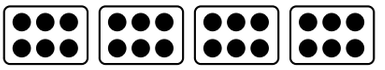
4 There are 24 teacups in boxes. Each box has 4 teacups. How many boxes are there? Select *all* the correct representations of the problem.

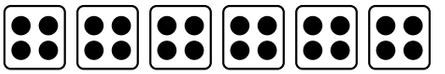
(A) $t \times 4 = 24$

(B) $4 \div t = 24$

(C) $24 \div 4 = t$

(D) $24 \times t = 4$

(E) 

(F) 

5 Write a division equation and a multiplication equation to represent the story problem. Use a letter to represent the unknown value.

Han has 28 blueberries. He puts the same number of blueberries into each of 7 cups. How many blueberries are in each cup?

division equation: _____

multiplication equation: _____

Name _____ Date _____

Additional Practice 4.06

For Problems 1 and 2, write a multiplication equation and a division equation to represent the story problem. Use a letter to represent the unknown value. Then solve the story problem.

1 Clare has 56 books. She places 8 books on each shelf. How many shelves does she use?

multiplication equation: _____

division equation: _____

answer: _____

2 Diego has 36 toy cars. He arranges them equally into 4 boxes. How many toy cars are in each box?

multiplication equation: _____

division equation: _____

answer: _____

3 Priya has 72 coins. Each coin pouch can hold 8 coins. How many coin pouches can she fill? Select *all* the equations that represent the story problem.

(A) $8 \times p = 72$

(B) $8 \times 72 = p$

(C) $72 \div 8 = p$

(D) $p \times 8 = 72$

(E) $p \div 8 = 72$

(F) $p \div 72 = 8$

Name _____ Date _____

Show or explain your thinking.

4 Write an equation to represent the story problem. Use a letter to represent the unknown value. Then solve the story problem.

A baker has 54 breakfast bars. He arranges them equally onto 6 trays. How many breakfast bars are on each tray?

equation: _____

answer: _____

5 A librarian arranges books by placing 7 books on each shelf. She has 63 books in all. How can you use the multiplication equation $9 \times 7 = 63$ to determine the number of shelves used?

_____

_____

_____

6 The gym teacher has 32 badminton rackets. She puts them into groups of 4 rackets. How many rackets are in each group?

(A) 6 rackets

(B) 7 rackets

(C) 8 rackets

(D) 9 rackets

Name _____ Date _____

Additional Practice 4.07

For Problems 1 and 2, use the expression to complete the related multiplication and division equations.

1 6×4

_____ × _____ = _____

_____ × _____ = _____

_____ ÷ _____ = _____

_____ ÷ _____ = _____

2 7×5

_____ × _____ = _____

_____ × _____ = _____

_____ ÷ _____ = _____

_____ ÷ _____ = _____

For Problems 3 and 4, use the set of numbers to complete the multiplication and division equations.

3 **Numbers:** 9, 3, 27

_____ × _____ = _____

_____ × _____ = _____

_____ ÷ _____ = _____

_____ ÷ _____ = _____

4 **Numbers:** 6, 8, 48

_____ × _____ = _____

_____ × _____ = _____

_____ ÷ _____ = _____

_____ ÷ _____ = _____

Name _____ Date _____

For Problems 5 and 6, select the number that makes the equation true.

5 $56 \div ? = 8$

(A) 6

(B) 7

(C) 8

(D) 9

6 $5 \times ? = 40$

(A) 6

(B) 7

(C) 8

(D) 9

7 Diego says the number that makes the equation $? \div 5 = 6$ true is 11. Clare says the number is 30. Who is correct? Explain your thinking.

_____

_____

_____

For Problems 8–11, determine the value of the expression.

8 $6 \times 6 =$ _____

9 $4 \times 7 =$ _____

10 $8 \times 4 =$ _____

11 $3 \times 9 =$ _____

Name _____ Date _____

Additional Practice 4.08

1 What is the missing number represented by the question mark? Explain your thinking.

×	1	2	3	4	5	6
1		2		5		
2		4		10		
3		6		?		
4		8		20		
5		10		25		
6		12		30		

2 Based on the pattern shown in the table, is the unknown number represented by the question mark *odd* or *even*? Explain your thinking.

odd even

×	1	2	3	4	5
1					5
2					10
3					15
4	4	8	12	16	?
5					25

Name _____ Date _____

3 Select *all* the true statements about the missing number represented by the question mark in the multiplication table.

×	1	2	3	4	5
1					5
2					10
3					15
4	4	8	12	16	?
5					25

(A) The missing number ends in 0 or 5.

(B) The missing number ends in 2.

(C) The missing number is 20.

(D) The missing number is 25.

For Problems 4–11, determine the value of the expression.

4 5 × 3 _____

5 8 × 2 _____

6 6 × 7 _____

7 4 × 9 _____

8 10 × 5 _____

9 7 × 6 _____

10 9 × 3 _____

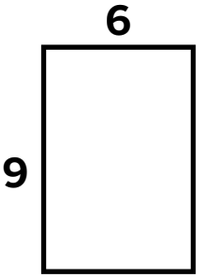
11 10 × 4 _____

Name _____ Date _____

Additional Practice 4.09

For Problems 1–3, refer to the rectangle.

1 Decompose the rectangle to determine its area.



2 Write 1 or more expressions to represent the decomposed rectangle.

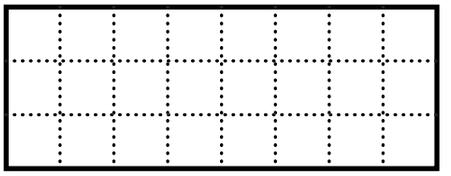
expression(s):

_____

3 Complete the equation representing the area of the original garden in square units.

$9 \times 6 =$ _____

4 Which expression could *not* be used to determine the area of the rectangle?



(A) $3 \times (5 + 3)$

(B) $(3 \times 5) + (3 \times 3)$

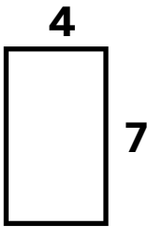
(C) $3 \times (5 \times 3)$

(D) 3×8

Name _____ Date _____

For Problems 5–7, refer to the rectangle.

5 Decompose the rectangle to determine its area.



6 Write 1 or more expressions to represent the decomposed rectangle.

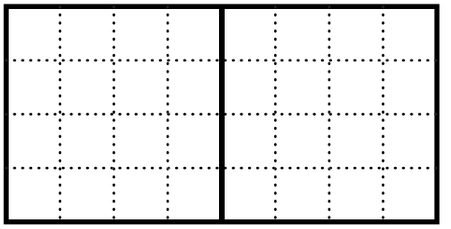
expression(s):

_____

7 Complete the equation representing the area of the original rectangle in square units.

4 × 7 = _____

8 Han composed a 4 × 8 rectangle. Write an expression to represent his work. Then determine the area of the rectangle.



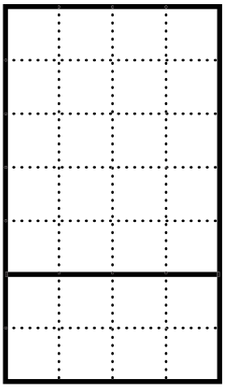
expression: _____

area: _____

Name _____ Date _____

Additional Practice 4.10

1 Priya decomposed the rectangle to determine the area. Complete the expressions to represent how she decomposed the rectangle and determined the area.



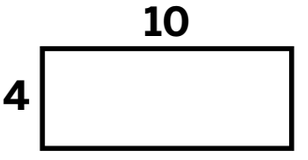
$(5 + 2) \times 4$

(_____ × 4) + (_____ × 4)

_____ + _____

area: _____

2 Which expression could *not* be used to determine the area of the rectangle?



(A) 4×10

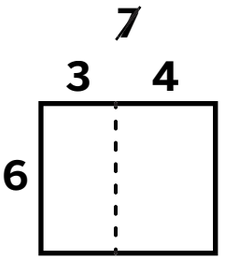
(B) $2 \times (4 \times 5)$

(C) $2 \times (4 + 5)$

(D) $4 \times (5 + 5)$

Name _____ Date _____

3 Diego decomposed the rectangle to show a strategy for determining its area. Complete the expressions to represent how he decomposed the rectangle and determined the area.



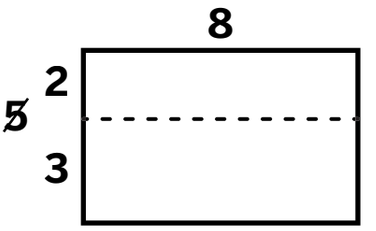
6 × (3 + _____)

(6 × 3) + (6 × _____)

18 + _____

area: _____

4 Han decomposed the rectangle to show a strategy for determining its area. Complete the expressions to represent how he decomposed the rectangle and determined the area.



8 × (_____ + _____)

(_____ × _____) + (_____ × _____)

_____ + _____

area: _____

Name _____ Date _____

Additional Practice 4.11

1 What is the value of 8 × 80?

(A) 480

(B) 560

(C) 640

(D) 720

For Problems 2–5, determine the product of the expression.

Show or explain your thinking.

2 8 × 60

answer: _____

3 6 × 30

answer: _____

4 7 × 80

answer: _____

5 8 × 20

answer: _____

Name _____ Date _____

6 What is the value of 30 × 3?

(A) 60 (B) 75 (C) 90 (D) 100

7 Priya buys movie tickets to a show that cost $30 each. She spends a total of $150. How many tickets does she buy? Explain your thinking.

answer: _____

8 Han is evaluating the expression 9 × 50. Han says 50 is 5 tens, and 9 × 5 is 45, so 45 tens is equal to 450. So, 9 × 50 = 450. Do you agree with Han? Explain your thinking.

Name _____ Date _____

Additional Practice 4.12

1 Which expression is equal to 16 × 4?

(A) 4 × (10 × 6)

(B) 4 × (10 + 6)

(C) 6 × (10 + 4)

(D) 10 × (6 + 4)

For Problems 2 and 3, evaluate the expression using any strategy.

Show or explain your thinking.

2 6 × 17

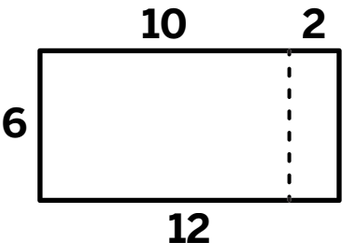
answer: _____

3 4 × 15

answer: _____

Name _____ Date _____

4 Diego was evaluating 6 × 12. Use his diagram to determine the product.



Show or explain your thinking.

answer: _____

5 What is the value of 7 × 14?

(A) 56 (B) 70 (C) 84 (D) 98

6 Priya writes 5 × 16 = 5 × (10 × 6). Do you agree with her statement? Explain your thinking.

Name _____ Date _____

Additional Practice 4.13

1 A bookstore orders 7 boxes of markers. Each box contains 15 markers. How many markers did the bookstore order?

(A) 75 markers

(B) 90 markers

(C) 105 markers

(D) 120 markers

For Problems 2 and 3, solve the story problem and write an expression or expressions to represent your work. Show or explain your thinking.

Show your thinking.

2 A coach arranged 7 rows of water bottles with 12 bottles in each row. How many water bottles did the coach arrange?

expression(s): _____

answer: _____

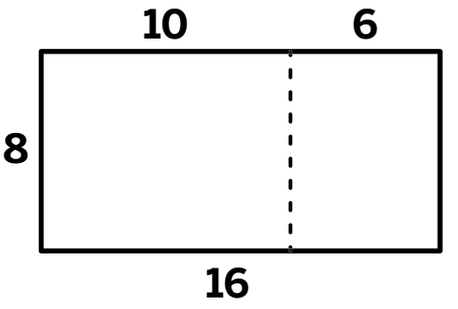
Name _____ Date _____

Show or explain your thinking.

3 Diego buys 4 packs of trading cards. Each pack contains 15 cards. How many trading cards did Diego purchase?

expression(s): _____ **answer:** _____

4 Priya's uncle wants to build a patio that measures 16 feet by 8 feet. He asks Priya to determine the area of the patio. Complete her work.



Priya's work:

8×16

$8 \times (\_\_\_\_ + 6)$

$(8 \times \_\_\_\_) + (8 \times 6)$

$\_\_\_\_ + \_\_\_\_ = \_\_\_\_$

The area of the patio is _____.

5 A storage closet measures 9 feet by 11 feet. What is the area of the storage closet?

(A) 90 square feet

(B) 91 square feet

(C) 99 square feet

(D) 108 square feet

Name _____ Date _____

Additional Practice 4.14

1 What is the value of 3 × 28?

(A) 54 (B) 68 (C) 84 (D) 96

For Problem 2 and 3, determine the product.

Show your thinking.

2 4 × 23

answer: _____

3 3 × 31

answer: _____

Name _____ Date _____

4 Diego is evaluating 2 × 36. Complete his work.

Diego's Work:

2 × 36

2 × (30 + _____)

(2 × 30) + (2 × _____)

60 + 12 = 72

So, 2 × 36 is _____.

5 Which expression could *not* be used to evaluate 2 × 45?

(A) 2 × (40 × 5)

(B) 2 × (40 + 5)

(C) 45 + 45

(D) (2 × 40) + (2 × 5)

6 Clare is evaluating 3 × 32. She says 3 × 3 = 90 and 3 × 2 = 60. 90 + 60 = 150, so 3 × 32 = 150. Do you agree with Clare? Explain your thinking.

Name _____ Date _____

Additional Practice 4.15

For Problems 1–3, solve the story problem and write an equation using a letter for the unknown value.

Show or explain your thinking.

1 Han has 150 pages left in his book. He plans to read 18 pages each day for the next 7 days. How many pages will he have left to read after those 7 days?

answer: _____

equation: _____

2 Diego has 350 marbles. He buys 5 more containers of marbles, and each holds 15 marbles. How many marbles does Diego have now?

answer: _____

equation: _____

Name _____ Date _____

Show your thinking.

3 An artist has 150 paintbrushes in her art studio. Her friend gives her 5 more sets of paintbrushes. Each set contains 12 paintbrushes. How many paintbrushes does the artist have now?

answer: _____

equation: _____

4 Clare has 200 points on a gift card. Each item she buys costs 12 points. She buys 8 items. How many points remain on her gift card?

(A) 96 points

(B) 104 points

(C) 112 points

(D) 144 points

5 Priya has $300 in her fundraising account. She receives 7 more donations of $20 each. How much money does Priya have now? Select *all* the equations that represent the story problem.

(A) $300 + (7 \times 20) = p$

(B) $300 \times (7 \times 20) = p$

(C) $300 - (7 \times 20) = p$

(D) $300 + (20 \times 7) = p$

(E) $(7 \times 20) + 300 = p$

(F) $(7 \times 20) - 300 = p$

Name _____ Date _____

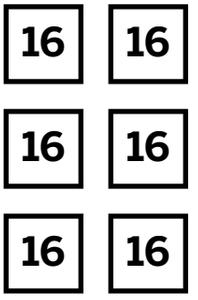
Additional Practice 4.16

1 A librarian had 84 books. She put the same number of books on each of 6 shelves. How many books did she place on each shelf?

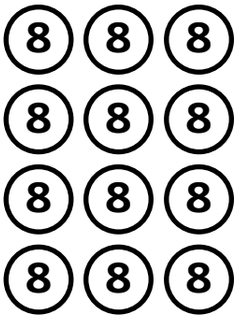
(A) 12 (B) 14 (C) 16 (D) 18

For Problems 2 and 3, match the diagram with the story problem it represents.

A



B



2 Han has 96 seeds. He puts 8 seeds in each cup. How many cups does he need?

_____

3 Diego has 96 crayons. He puts the same number of crayons in 6 boxes. How many crayons are in each box?

_____

Name _____ Date _____

For Problems 4 and 5, write an equation to represent the story problem, using a letter for the unknown value. Then solve the story problem.

Show or explain your thinking.

4 There are 96 desks in a classroom arranged in 8 rows, with the same number of desks in each row. How many desks are in each row?

equation: _____ **answer:** _____

5 A café owner has 56 coffee mugs to sell. He sells them in sets of 4. How many sets of coffee mugs does he have?

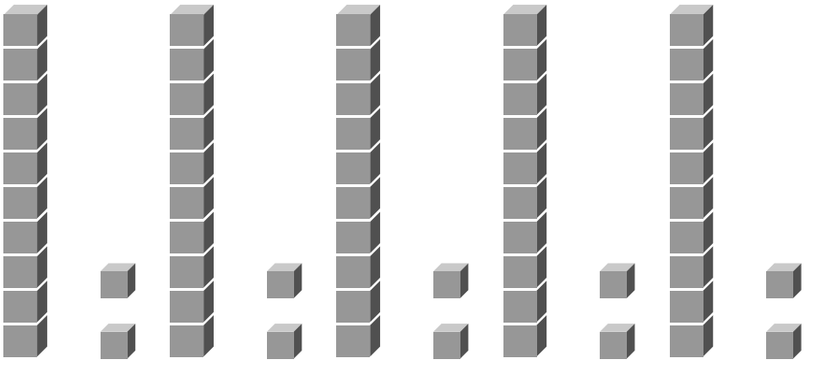
equation: _____ **answer:** _____

6 72 volunteers arrived to help at a community event. The organizer arranged 9 tables for the volunteers. How many volunteers were seated at each table?

(A) 8 (B) 9 (C) 6 (D) 12

Name _____ Date _____

Additional Practice 4.17



1 Select *all* the division expressions the model represents.

(A) 60 ÷ 5 (B) 60 ÷ 12 (C) 50 ÷ 5 (D) 50 ÷ 2 (E) 60 ÷ 6

2 Select the quotient of the expression 88 ÷ 11.

(A) 8 (B) 9 (C) 77 (D) 99

3 Determine the missing divisor in the equation 56 ÷ ? = 14.

Show or explain your thinking.

answer: _____

Name _____ Date _____

For Problems 4 and 5, determine the value of the expression using any strategy.

Show or explain your thinking.

4 80 ÷ 5

answer: _____

5 60 ÷ 15

answer: _____

The work of determining the quotient 96 ÷ 12 is partially complete. Use the work for Problems 6 and 7.

? × 12 = 96
2 × 12 = 24
□ × 12 = 96

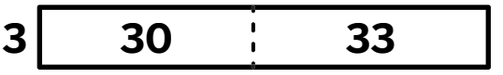
6 What number belongs in the box for the quotient 96 ÷ 12?

7 Explain how this strategy works to calculate 96 ÷ 12.

Name _____ Date _____

Additional Practice 4.18

1 Which division expression represents the diagram?



(A) 63 ÷ 3 (B) 3 ÷ 63 (C) 30 ÷ 3 (D) 33 ÷ 3

2 Complete the diagram to determine the quotient 60 ÷ 4.

_____

3 A chef baked 84 loaves of bread. She placed the same number of loaves of bread into 6 boxes. How many loaves of bread did she place in each box?

(A) 12 (B) 14 (C) 78 (D) 90

4 To determine the quotient 60 ÷ 5, Clare said, "I can break up 60 into 20, 20, and 20. Then I can divide each number by 5 and add the 3 quotients." Is Clare's method, correct? Explain your thinking.

_____

_____

_____

_____

Name _____ Date _____

For Problems 5 and 6, solve the story problem.

Show or explain your thinking.

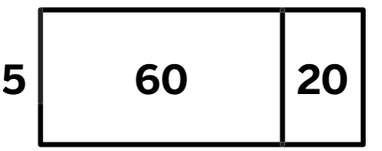
5 A teacher places 88 notebooks equally in 4 boxes. How many notebooks did the teacher place in each box?

answer: _____

6 A librarian has 84 books and places 6 books on each shelf. How many shelves does the librarian fill?

answer: _____

7 Which division expression represents the diagram?



(A) $5 \div 20$

(B) $5 \div 60$

(C) $5 \div 80$

(D) $80 \div 5$

Name _____ Date _____

Additional Practice 4.19

For Problems 1–4, determine the value of the expression.

1 $8 \div 4 =$ _____

2 $7 \times 6 =$ _____

3 $2 \times 9 =$ _____

4 $24 \div 6 =$ _____

For Problems 5 and 6, solve the story problem using any strategy.

Show your thinking.

5 Priya has 84 strawberries. She places 6 strawberries in each bowl. How many bowls did she use?

answer: _____

6 Han bought a box of candles. The box contained 10 packages with a total of 80 candles. How many candles were in each package?

answer: _____

Name _____ Date _____

7 A rectangular garden has a length of 8 feet. The area of the garden is 120 square feet. How wide is the garden?

(A) 12 feet

(B) 13 feet

(C) 15 feet

(D) 16 feet

8 A coach has 36 soccer balls. He distributes them equally among 12 teams. How many soccer balls does each team get?

(A) 2 balls

(B) 3 balls

(C) 4 balls

(D) 6 balls

9 The area of a rectangular swimming pool is 84 square feet. The width of the pool is 6 feet. Complete the diagram. How long is the pool?

_____

10 A baker has 96 soft pretzels. She places 8 soft pretzels on each tray. How many trays will she need?

(A) 10

(B) 12

(C) 14

(D) 16

Name _____ Date _____

Additional Practice 4.20

1 Write a story problem that can be represented by the equation $(60 + 30) \div 3 = n$.

_____

_____

_____

2 Han had $150. He spent $60 on a coat. Then he spent the remaining money on 5 school uniform shirts that each cost the same amount. What was the cost of each school uniform shirt?

(A) $12 (B) $18 (C) $20 (D) $30

3 A librarian has 60 boxes of bookmarks. There are 15 bookmarks in each box. She distributes the same number of boxes to 10 classrooms. How many bookmarks does each classroom receive? Select the expression that represents the story problem.

(A) $(60 \times 15) \times 10$

(B) $(60 \times 10) \div 15$

(C) $(60 \times 15) \div 10$

(D) $(60 \div 15) \times 10$

Name _____ Date _____

For Problems 4 and 5, match the story problem with the equation that represents it.

$(180 - 30) \div 6 = n$	$(200 - 40) \div 5 = n$
$(200 + 40) \div 5 = n$	$(180 + 30) \div 6 = n$

4 Diego had 200 beads. After using 40 beads, he put the same number of beads in 5 containers. How many beads did he put in each container?

equation: _____

5 Priya had 180 marbles. After giving 30 marbles to her brother, she gave the same number of beads to 6 friends. How many marbles did each friend receive?

equation: _____

For Problems 6 and 7, solve the story problem and write an equation that represents it. Use a letter for the unknown value.

Show your thinking.

6 A farmer had 72 boxes of apples. Each box had 5 apples. He distributed the apples equally to 6 fruit stands. How many apples did each fruit stand receive?

answer: _____ **equation:** _____

Grade 3 | Unit 5

Additional Practice

Practice Problems

Name _____ Date _____

Additional Practice 5.02

For Problems 1–4, the rectangle represents 1 whole. Partition the rectangle into the given type of equal parts. Draw the partitions.

Draw

1 Halves

2 Thirds

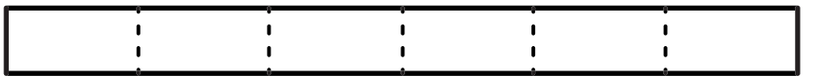
3 Fourths

4 Sixths

Name _____ Date _____

For Problems 5–6, the rectangle represents 1 whole. What is each part called? Circle one.

5

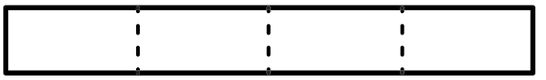


Sixths Fourths

6

Eighths Thirds

7 Han split a piece of paper into 4 equal parts. He painted each part a different color. How could you describe the equal parts of his paper?



(A) Sixths (B) Eighths

(C) Thirds (D) Fourths

Name _____ Date _____

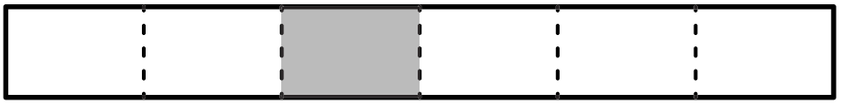
Additional Practice 5.03

For Problems 1 and 2, the rectangle represents 1 whole. Partition the rectangle into the given number of equal parts. Label the value of each part with a fraction.

1 8 equal parts

2 4 equal parts

3 The large rectangle represents 1 whole. Which fraction represents the value of the shaded part?



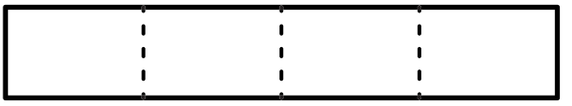
A $\frac{1}{5}$

B $\frac{1}{6}$

C $\frac{1}{6}$

D $\frac{1}{3}$

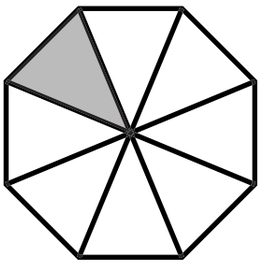
4 The large rectangle represents 1 whole. What fraction represents the value of each of the equal parts? Explain your thinking.



Name _____ Date _____

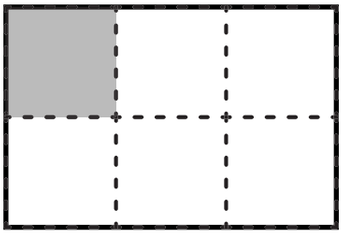
For Problems 5–8, write the fraction of each whole that is shaded.

5



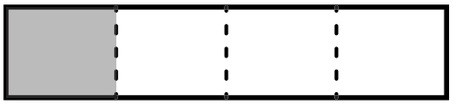
_____

6



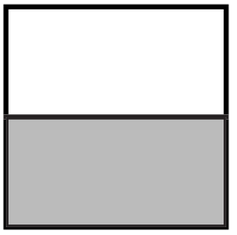
_____

7



_____

8

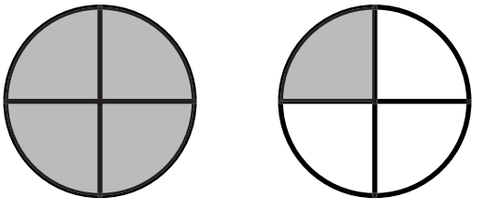


_____

Name _____ Date _____

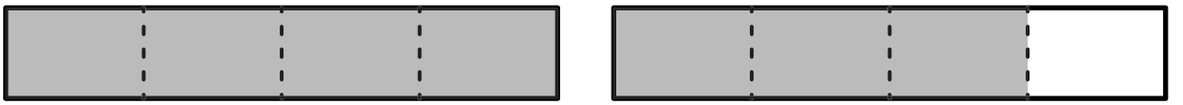
Additional Practice 5.04

1 Each circle represents 1 whole. Which fraction represents the value of all the shaded parts in the diagram?



(A) $\frac{5}{6}$ (B) $\frac{1}{2}$ (C) $\frac{3}{4}$ (D) $\frac{5}{4}$

2 Each fraction strip represents 1 whole.

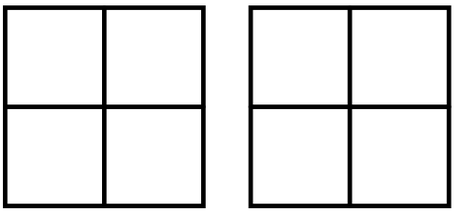


Diego says the fraction $\frac{7}{4}$ represents the fraction diagram.
Priya says the fraction $\frac{7}{8}$ represents the fraction diagram.

Who is correct? Explain your thinking.

Name _____ Date _____

3 Each fraction model represents 1 whole. Which fraction represents the value of all the shaded parts in the diagram?

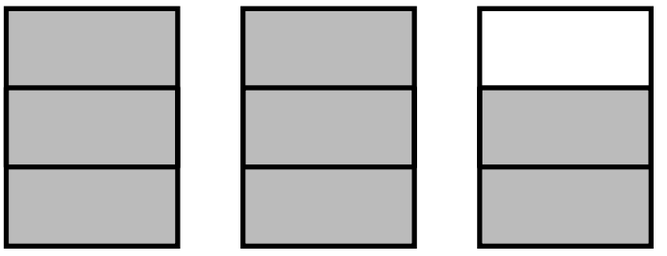


(A) $\frac{3}{4}$ (B) $\frac{7}{4}$ (C) $\frac{4}{4}$ (D) $\frac{5}{4}$

4 Han made granola bars one week. Each rectangle represents 1 granola bar. The shaded parts show how much Han ate each day. Complete the table.

Day	1 Part (Unit Fraction)	How many?	Fraction in Words	Fraction
Monday 	$\frac{1}{6}$			
Tuesday 		3		
Wednesday 				$\frac{4}{2}$
Friday 			two-eighths	

5 Each rectangle represents 1 whole. Which fraction represents the value of all the shaded parts in the diagram?

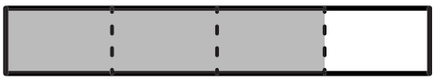


answer: _____

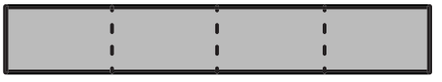
Name _____ Date _____

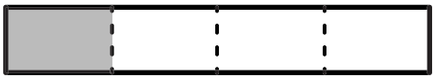
Additional Practice 5.05

1 Which fraction-strip diagram represents $\frac{3}{4}$?

A 

B 

C 

D 

For Problems 2–4, each fraction strip represents 1 whole. Use the fraction strips to show the given fractions.

2 $\frac{6}{4}$

3 $\frac{4}{3}$

4 $\frac{6}{8}$

Name _____ Date _____

For Problems 5–8, determine the value of the expression.

5 $8 \times 5 =$ _____

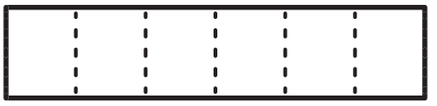
6 $9 \times 3 =$ _____

7 $20 \div 4 =$ _____

8 $36 \div 6 =$ _____

Show your thinking.

9 Diego is walking from his house to the park. He walks $\frac{2}{6}$ of the way and stops to tie his shoes. Show how far Diego has walked on the diagram. Explain your thinking.



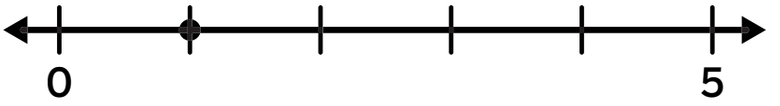
Name _____ Date _____

Additional Practice 5.06

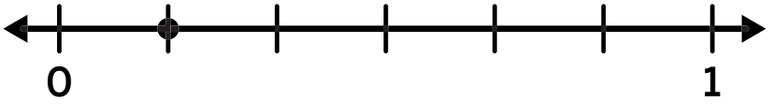
1 Han says the point on the number line represents $\frac{1}{2}$. Clare says the point represents 2. Who is correct? Explain your thinking.

2 Which number line represents the location of $\frac{2}{3}$?

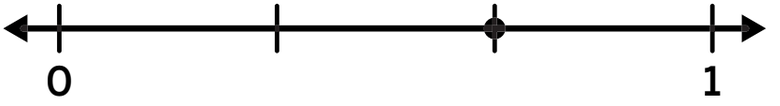
A



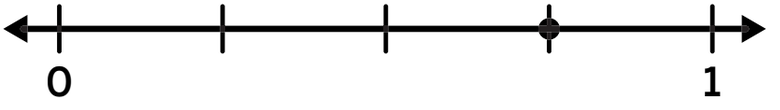
B



C

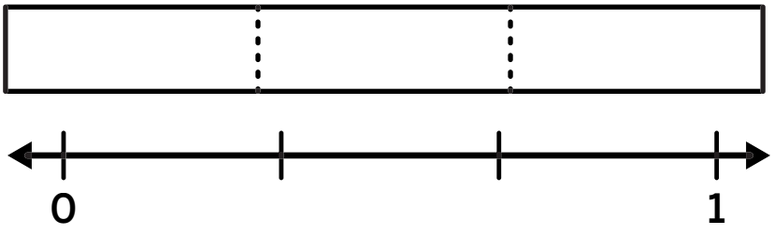


D

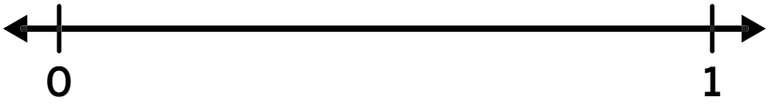


Name _____ Date _____

3 Look at the fraction strip and number line. How are they alike? How are they different?



4 Locate and label the fraction $\frac{1}{4}$ on the number line.

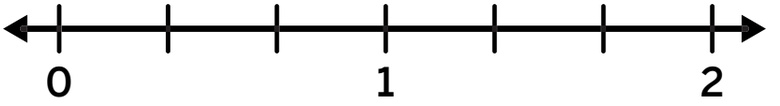


5 Plot $\frac{1}{8}$ on the number line below.

Name _____ Date _____

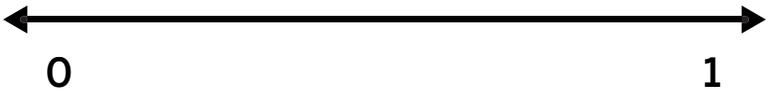
Additional Practice 5.07

1 Locate and label a fraction *greater* than 1 and a fraction *less* than 1 on the number line.



For Problems 2 and 3, locate and label the fraction on the number line.

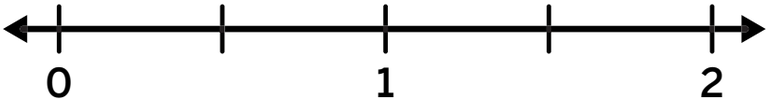
2 $\frac{3}{4}$



3 $\frac{2}{6}$

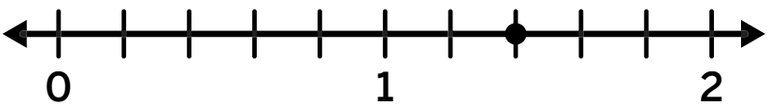
4 Locate points A and B on the number line. Label each point with the correct fraction and letter.

Point A $\frac{3}{2}$ Point B $\frac{1}{2}$



Name _____ Date _____

5 Which fraction is represented by the point on the number line?

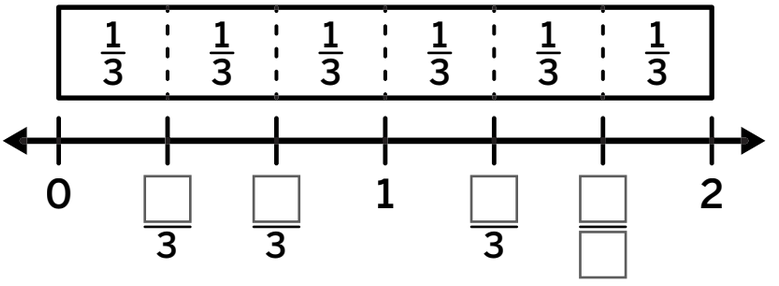


(A) $\frac{4}{6}$ (B) $\frac{7}{5}$ (C) $\frac{3}{4}$ (D) $\frac{5}{6}$

6 Will the fraction $\frac{9}{8}$ be to the right or the left of 1 on a number line? Explain your thinking?

Show your thinking.

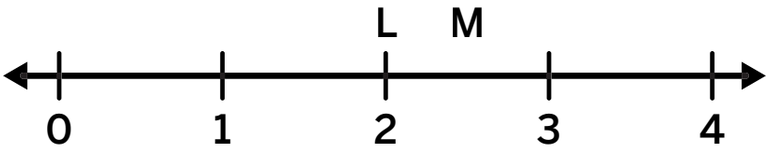
7 Fill in the missing numbers to show $\frac{5}{3}$ on the number line.



Name _____ Date _____

Additional Practice 5.08

1 Select *all* the true statements about points L and M on the number line.



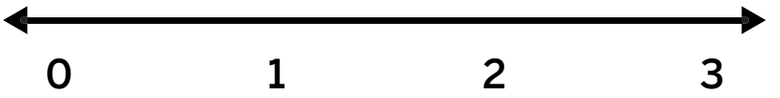
(A) Point L represents a whole number.

(B) Point M represents a whole number.

(C) Point L represents the fraction $\frac{5}{3}$.

(D) Point M represents the fraction $\frac{5}{2}$.

2 Label *all* the tick marks on the number line.



3 Circle the fractions on the number line in Problem 2 that are located at whole numbers and record them here. How do you know these fractions are equal to whole numbers?

Name _____ Date _____

For Problems 4–9, determine the value of the expression.

4 $8 \times 8 =$ _____

5 $20 \div 5 =$ _____

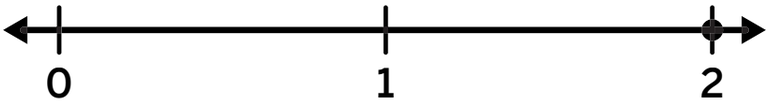
6 $15 \div 3 =$ _____

7 $6 \times 7 =$ _____

8 $9 \times 4 =$ _____

9 $24 \div 8 =$ _____

10 Write 2 fractions that could represent the location of the point on the number line.



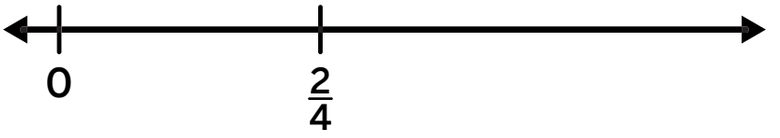
answer: _____, _____

Name _____ Date _____

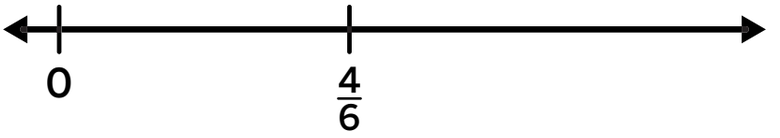
Additional Practice 5.09

For Problems 1 and 2, the number line shows the location of 0 and a fraction. Locate the given fraction on the number line.

1 $\frac{5}{4}$



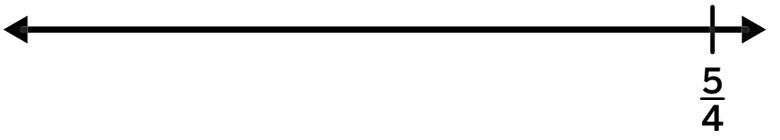
2 $\frac{9}{6}$



For Problems 3 and 4, locate 1 on the number line and label it with a whole number and a fraction.

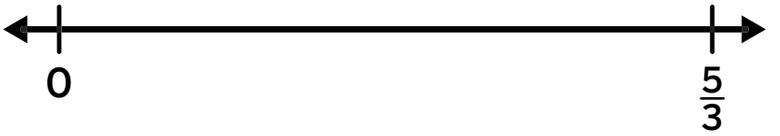
3

4



Name _____ Date _____

5 Which statement about the number line is *false*?



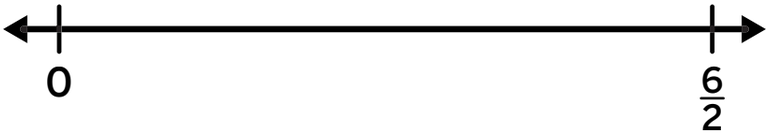
(A) The number 1 would be located to the left of $\frac{5}{3}$.

(B) The number 2 would be located to the right of $\frac{5}{3}$.

(C) The fraction $\frac{4}{3}$ would be located to the right of $\frac{5}{3}$.

(D) The fraction $\frac{6}{3}$ would be located to the right of $\frac{5}{3}$.

6 Which statement about the number line is *false*?



(A) The number 1 would be located to the left of $\frac{6}{2}$.

(B) The number $\frac{1}{2}$ would be located to the left of $\frac{6}{2}$.

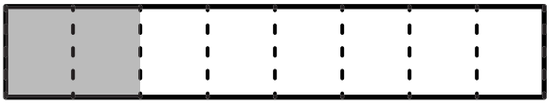
(C) The fraction $\frac{3}{2}$ would be located to the left of $\frac{6}{2}$.

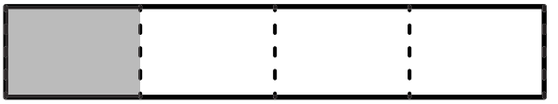
(D) The fraction $\frac{8}{2}$ would be located to the left of $\frac{6}{2}$.

Name _____ Date _____

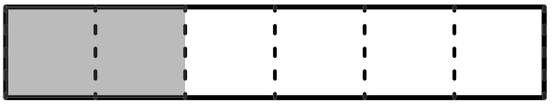
Additional Practice 5.10

1 Each diagram represents 1 whole. Select the 2 diagrams in which the total shaded areas represent equivalent fractions.

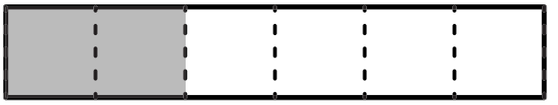
A 

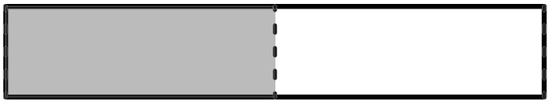
B 

C 

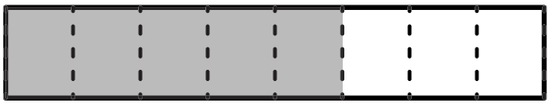
D 

2 Each diagram represents 1 whole. Select the 2 diagrams in which the total shaded areas represent equivalent fractions.

A 

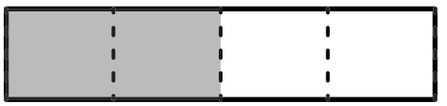
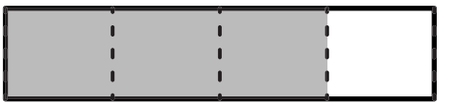
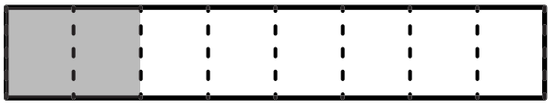
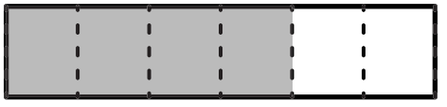
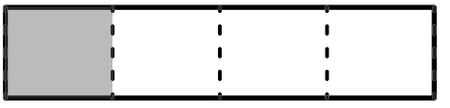
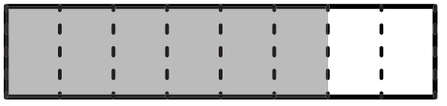
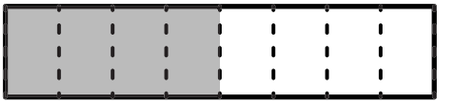
B 

C 

D 

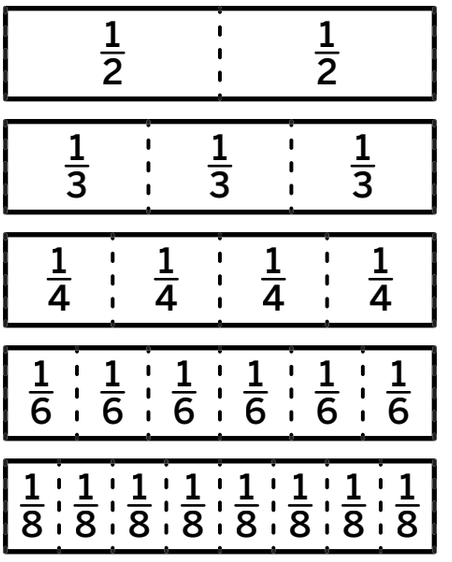
Name _____ Date _____

Each diagram in Problems 3–6 represents 1 whole. Match each diagram on the left with the diagram on the right that represents an equivalent fraction.

	Diagram	Equivalent Diagram
3		_____ 
4		_____ 
5		_____ 
6		_____ 

7 Select *all* the true statements.

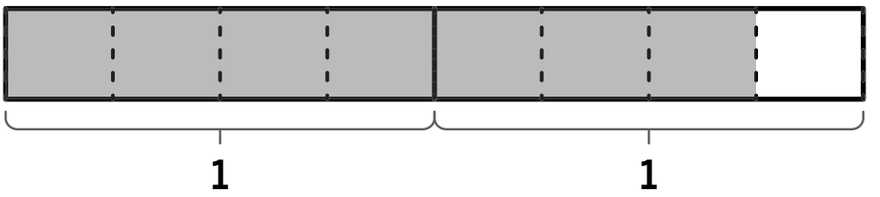
- (A) $\frac{3}{4}$ is equivalent to $\frac{6}{8}$.
- (B) $\frac{1}{2}$ is equivalent to $\frac{3}{4}$.
- (C) $\frac{4}{6}$ is equivalent to $\frac{2}{3}$.
- (D) $\frac{5}{8}$ is equivalent to $\frac{3}{6}$.
- (E) $\frac{3}{3}$ is equivalent to $\frac{8}{8}$.



Name _____ Date _____

Additional Practice 5.11

1 Select *all* the fractions that could be represented by the total shaded area of the diagram.

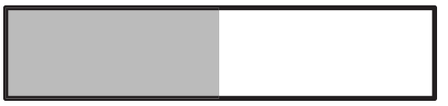


Ⓐ $\frac{7}{4}$ Ⓑ $\frac{6}{4}$ Ⓒ $\frac{14}{8}$ Ⓓ $\frac{3}{3}$ Ⓔ $\frac{5}{3}$ Ⓕ $\frac{10}{8}$

For Problems 2 and 3, write at least 2 fractions that represent the total shaded area of the diagram. Each diagram represents a value of 1. Show your thinking on the diagrams.

Show your thinking.

2



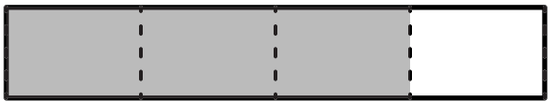
answer: _____

3

answer: _____

Name _____ Date _____

4 Select *all* the fractions that could be represented by the total shaded area of the diagram. The diagram represents a value of 1.

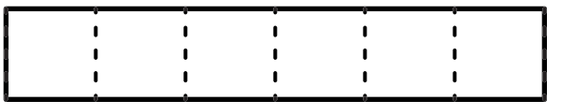


(A) $\frac{6}{8}$ (B) $\frac{3}{4}$ (C) $\frac{2}{3}$ (D) $\frac{4}{6}$ (E) $\frac{1}{2}$ (F) $\frac{5}{8}$

5 Han walked $\frac{2}{3}$ of a mile to the park. He said this distance can be represented by the fraction $\frac{4}{6}$. Shade the diagrams to represent the actual distance and Han's distance.

Actual distance:

Han's distance:



Is Han correct? _____

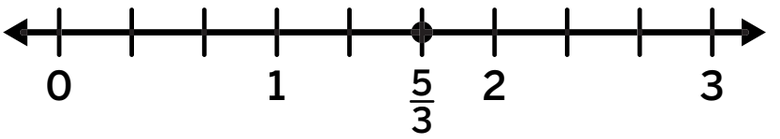
6 Select *all* the fractions that could be represented by the total shaded area of the diagram. The diagram represents a value of 1.

(A) $\frac{1}{8}$ (B) $\frac{3}{8}$ (C) $\frac{1}{3}$ (D) $\frac{2}{6}$ (E) $\frac{1}{2}$ (F) $\frac{3}{4}$

Name _____ Date _____

Additional Practice 5.12

1 Which fraction is equivalent to the fraction shown on the number line?



(A) $\frac{10}{6}$ (B) $\frac{8}{6}$ (C) $\frac{15}{6}$ (D) $\frac{7}{4}$

For Problems 2 and 3, write one fraction that is equivalent to the given fraction. Show your thinking on the number lines.

Show your thinking.

2 $\frac{1}{2}$

answer: _____

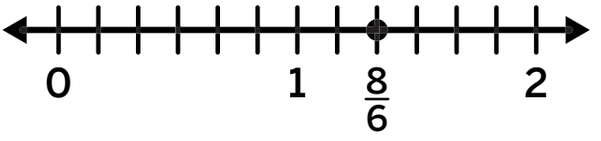
3 $\frac{2}{3}$

answer: _____

Name _____ Date _____

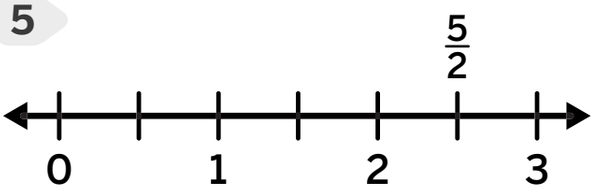
For Problems 4 and 5, identify one fraction that is equivalent to the fraction shown on the number line. Then write an equation to show that the fractions are equivalent.

4



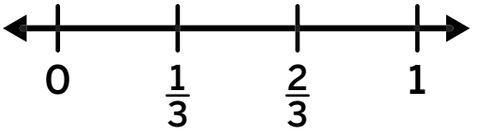
answer: _____

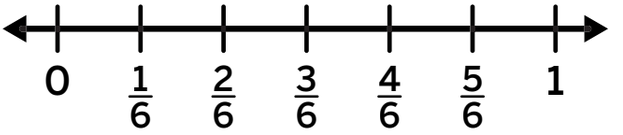
5



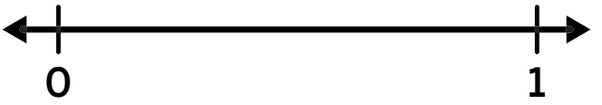
answer: _____

6 Diego drew these number lines and said, "$\frac{2}{3}$ is equivalent to $\frac{2}{6}$." Explain why Diego is not correct.





7 Which fraction is equivalent to $\frac{1}{3}$? Use the number line if it is helpful.



(A) $\frac{2}{3}$ (B) $\frac{2}{6}$ (C) $\frac{4}{8}$ (D) $\frac{4}{6}$

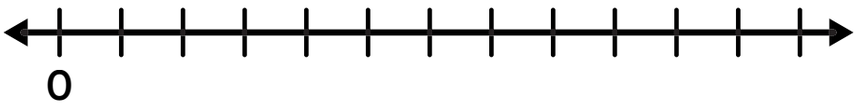
Name _____ Date _____

Additional Practice 5.13

1 In each column of the table, write fractions that are equivalent to the whole number in the top row. The fractions in each row should have the same denominator.

5	6	7
		$\frac{21}{3}$
$\frac{30}{6}$		

2 Is $\frac{10}{6}$ equivalent to a whole number? Write yes or no.



answer: _____

3 Select *all* the fractions that are equivalent to whole numbers.

A. $\frac{12}{3}$

B. $\frac{11}{4}$

C. $\frac{9}{3}$

D. $\frac{7}{2}$

E. $\frac{8}{4}$

F. $\frac{4}{8}$

Name _____ Date _____

4 Is $\frac{72}{9}$ equivalent to a whole number? Explain your thinking.

_____

_____

_____

5 Which fraction is not equivalent to 8?

(A) $\frac{16}{2}$ (B) $\frac{8}{8}$ (C) $\frac{24}{3}$ (D) $\frac{32}{4}$

For Problems 6–9, determine the value of the expression.

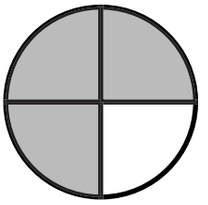
6 $8 \div 4 =$ _____

7 $7 \times 6 =$ _____

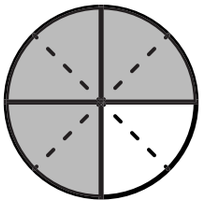
8 $12 \div 3 =$ _____

9 $9 \times 5 =$ _____

10 Use the models to find the equivalent fraction to $\frac{3}{4}$.



$\frac{3}{4}$



$\frac{\square}{8}$

Name _____ Date _____

Additional Practice 5.14

1 Which fraction is not equivalent to 6?

(A) $\frac{6}{6}$ (B) $\frac{6}{1}$ (C) $\frac{36}{6}$ (D) $\frac{12}{2}$

2 Which fraction is not equivalent to 3?

(A) $\frac{12}{4}$ (B) $\frac{3}{3}$ (C) $\frac{9}{3}$ (D) $\frac{6}{2}$

3 Which fraction is not equivalent to 2?

(A) $\frac{4}{2}$ (B) $\frac{6}{3}$ (C) $\frac{12}{4}$ (D) $\frac{8}{4}$

4 Is $\frac{20}{1}$ a whole number? Write "yes" or "no". Explain your thinking.

5 Select *all* the fractions that are equivalent to whole numbers.

(A) $\frac{16}{4}$ (B) $\frac{10}{2}$ (C) $\frac{7}{3}$ (D) $\frac{12}{1}$ (E) $\frac{9}{5}$ (F) $\frac{20}{4}$

Name _____ Date _____

For Problems 6–11, determine the value of the expression.

6 $8 \div 2 =$ _____

7 $7 \times 5 =$ _____

8 $12 \div 4 =$ _____

9 $9 \times 6 =$ _____

10 $36 \div 6 =$ _____

11 $50 \div 10 =$ _____

Name _____ Date _____

Additional Practice 5.15

Show your thinking.

1 Clare says that $\frac{1}{3}$ of a pizza is larger than $\frac{1}{2}$ of the same pizza because 3 is larger than 2. Is Clare correct? Explain your thinking.

2 Which fraction is greater: $\frac{1}{4}$ or $\frac{1}{8}$?

answer: _____

For Problems 3–6, determine the value of the expression.

3 $42 \div 6 =$ _____

4 $5 \times 8 =$ _____

5 $28 \div 4 =$ _____

6 $6 \times 7 =$ _____

Name _____ Date _____

7 Each person has the same-sized pizza. The table shows the number of equal-sized slices in each pizza.

Person	Number of Equal-Sized Slices
Clare	3
Diego	6
Han	4
Priya	8

Which fraction represents the smallest equal-sized slice of pizza?

(A) $\frac{1}{3}$ (B) $\frac{1}{6}$ (C) $\frac{1}{4}$ (D) $\frac{1}{8}$

8 Han is choosing between 2 options for creating a walkway with tiles. A value of 1 represents the length of the whole walkway. Draw diagrams to help compare the widths of the tiles. Then use your diagrams to answer the questions.

Draw

Which fraction represents the width of the tile that is greater?

answer: _____

Name _____ Date _____

Additional Practice 5.16

1 Select *all* the true statements.

(A) $\frac{7}{3} > \frac{7}{6}$

(B) $\frac{8}{3} < \frac{8}{4}$

(C) $\frac{4}{4} = 1$

(D) $\frac{5}{8} < \frac{5}{4}$

(E) $\frac{2}{6} > \frac{2}{4}$

For Problems 2–4, complete the statement using <, >, or =.

2 $\frac{4}{8}$ ___ $\frac{4}{4}$

3 $\frac{6}{4}$ ___ $\frac{6}{6}$

4 $\frac{6}{8}$ ___ $\frac{3}{4}$

Show your thinking.

5 Compare the fractions $\frac{3}{3}$ and $\frac{3}{6}$ using a visual model. Explain which fraction is greater.

Name _____ Date _____

Show your thinking.

6 Han was given the statement $\frac{2}{4} < \frac{2}{?}$ and the numbers 2, 3, 4, 6, and 8 to use as denominators. He said that 6 and 8 would make the statement true. Do you agree with Han? Write yes or no.

$\frac{2}{4}$ is greater than $\frac{2}{6}$ and $\frac{2}{8}$. So, Han is not correct.

answer: _____

For Problems 7–10, determine the value of the expression.

7 $4 \times 6 =$ _____

8 $9 \times 5 =$ _____

9 $40 \div 8 =$ _____

10 $16 \div 4 =$ _____

Name _____ Date _____

Additional Practice 5.17

1 Select *all* the true statements.

A. $\frac{5}{2} > \frac{4}{2}$

B. $\frac{7}{4} < \frac{6}{4}$

C. $\frac{2}{6} < \frac{3}{6}$

D. $\frac{1}{4} < \frac{1}{2}$

E. $\frac{4}{8} > \frac{5}{8}$

F. $\frac{3}{3} > \frac{1}{3}$

2 Clare said, "There is no fraction with a denominator of 6 that is greater than $\frac{6}{6}$, because $\frac{6}{6}$ is equivalent to 1." Do you agree with Clare?

Show your thinking.

answer: _____

Name _____ Date _____

For Problems 3 and 4, write a numerator or denominator to make the statement true.

3 $\frac{4}{6} < \frac{4}{\square}$

4 $\frac{\square}{8} > \frac{3}{8}$

For Problems 5 and 6, use <, >, or = to make the statement true.

5 $\frac{3}{4} \_\_ \frac{6}{4}$

6 $\frac{7}{6} \_\_ \frac{5}{6}$

For Problems 7–10, determine the value of the expression.

7 $9 \div 3 =$ _____

8 $7 \times 4 =$ _____

9 $18 \div 6 =$ _____

10 $6 \times 6 =$ _____

Grade 3 | Unit 6

Additional Practice

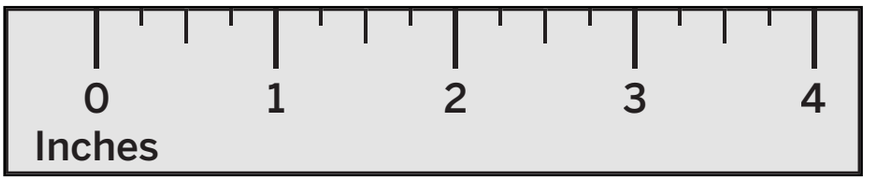
Practice Problems

Name _____ Date _____

Additional Practice 6.02

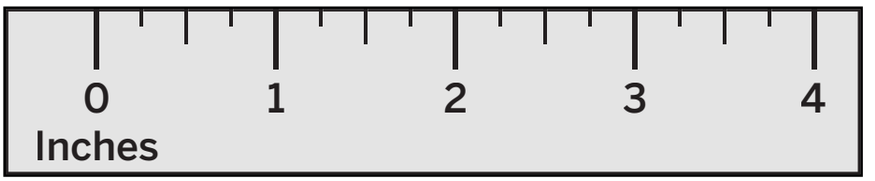
For Problems 1–5, measure the length of the object to the nearest half inch.

1



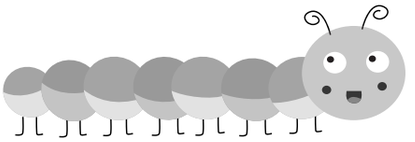
answer: _____

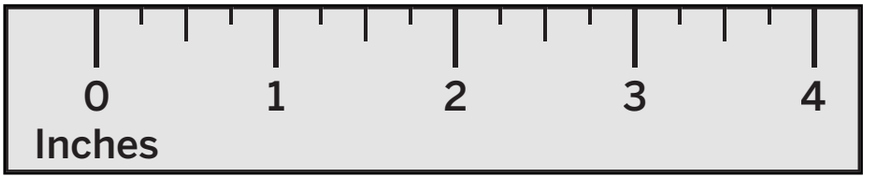
2



answer: _____

3

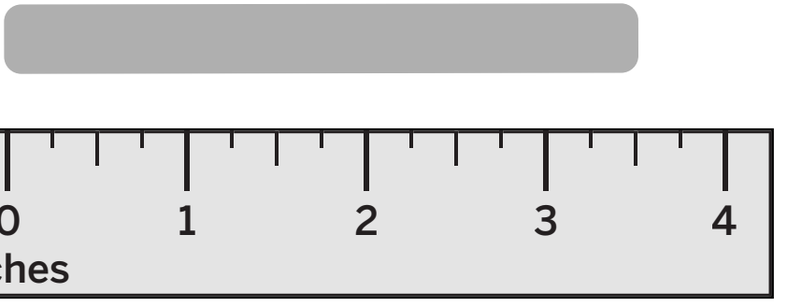




answer: _____

Name _____ Date _____

4 Measure the length of the chalk to the nearest half inch.



The chalk is about $\frac{\square}{2}$, or $\square\frac{\square}{2}$ inches long.

For Problems 5–10, determine the value of the expression.

5 $5 \times 6 =$ _____

6 $2 \times 9 =$ _____

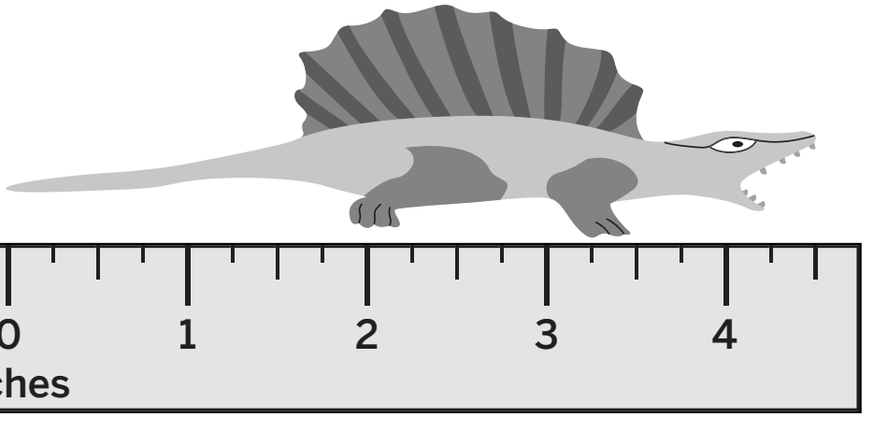
7 $3 \times 7 =$ _____

8 $4 \times 5 =$ _____

9 $6 \times 6 =$ _____

10 $5 \times 8 =$ _____

11 What is the length of the dinosaur in inches?



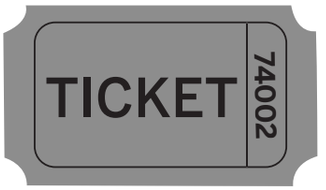
(A) $3\frac{1}{2}$ inches (B) 4 inches (C) $4\frac{1}{2}$ inches (D) $5\frac{1}{2}$ inches

Name _____ Date _____

Additional Practice 6.03

For Problems 1–3, measure the length of the objects to the nearest fourth of an inch using your paper inch ruler.

1



answer: _____

2

answer: _____

3

answer: _____

For Problems 4 and 5, draw a rectangle with the given length.

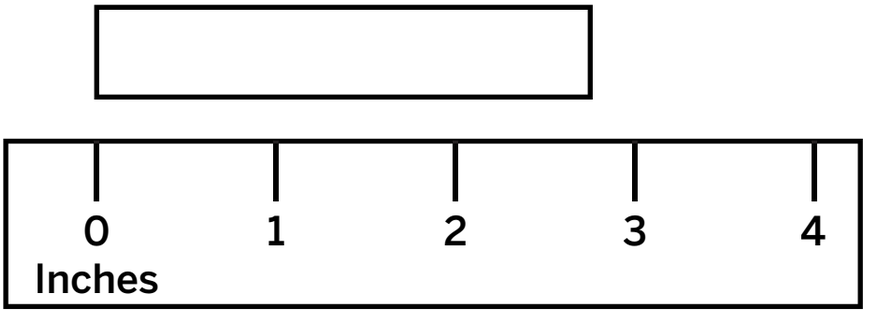
Draw

4 $5\frac{2}{4}$ inches

5 $2\frac{1}{4}$ inches

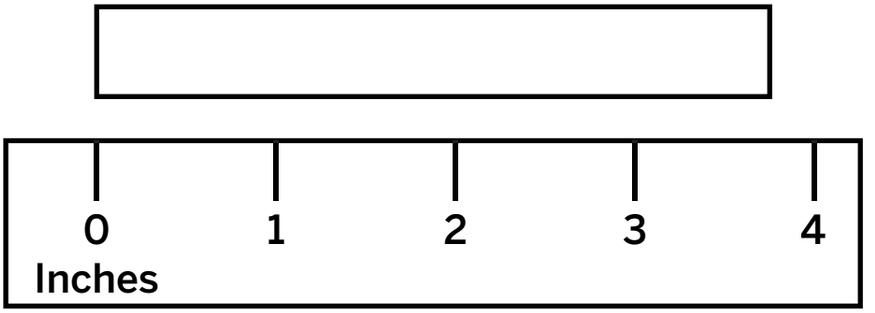
Name _____ Date _____

6 Partition the ruler into fourths of an inch. What is the length of the rectangle?



answer: _____

7 Partition the ruler into fourths of an inch. What is the length of the rectangle?



(A) $3\frac{1}{4}$ inches (B) $3\frac{2}{4}$ inches (C) $3\frac{3}{4}$ inches (D) 4 inches

For Problems 8–13, determine the value of the expression.

8 $4 \times 6 =$ _____

9 $3 \times 11 =$ _____

10 $6 \times 7 =$ _____

11 $3 \times 9 =$ _____

12 $5 \times 9 =$ _____

13 $3 \times 3 =$ _____

Name _____ Date _____

Additional Practice 6.04

1 Which lengths are the same lengths? Select *all* that apply?

(A) $\frac{7}{4}$ inches

(B) $7\frac{1}{2}$ inches

(C) $\frac{7}{24}$ inches

(D) $1\frac{3}{4}$ inches

2 The lengths of 4 different rectangles are shown in inches.

$2\frac{1}{2}$	$2\frac{3}{4}$	$\frac{6}{4}$	$2\frac{2}{4}$

Which lengths are equivalent? Explain your thinking.

_____

_____

For Problems 3–10, determine the value of the expression.

3 $1 \times 9 =$ _____

4 $5 \times 6 =$ _____

5 $3 \times 8 =$ _____

6 $2 \times 9 =$ _____

7 $10 \times 9 =$ _____

8 $8 \times 8 =$ _____

9 $4 \times 4 =$ _____

10 $2 \times 2 =$ _____

Name _____ Date _____

For Problems 11–13, use a standard inch ruler to measure the length of the rectangle. Then write an equivalent length.

11

length: _____

equivalent length: _____

12

length: _____

equivalent length: _____

13

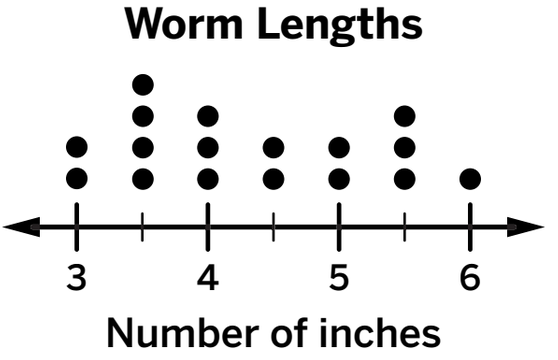
length: _____

equivalent length: _____

Name _____ Date _____

Additional Practice 6.05

The line plot shows the lengths of some worms, in inches. Use the line plot to solve Problems 1–3.

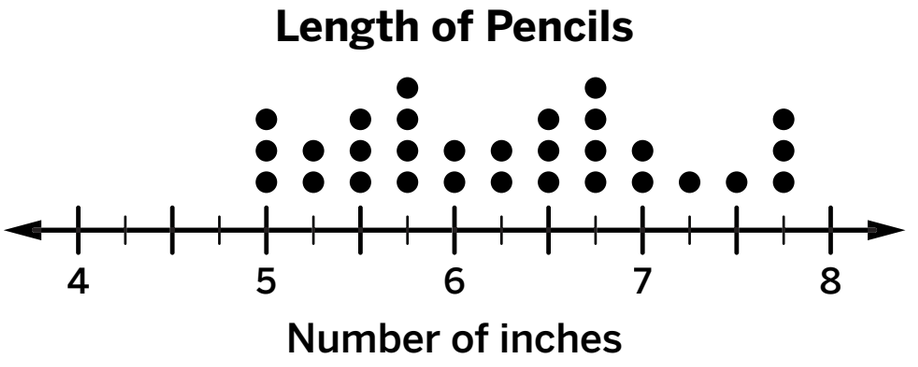


1 What is the most common worm length? _____

2 How many worms are either 4 or $4\frac{1}{2}$ inches? _____

3 How many worms are 5 inches or longer? _____

The line plot shows the lengths of some pencils, in inches. Use the line plot to solve Problems 4 and 5.



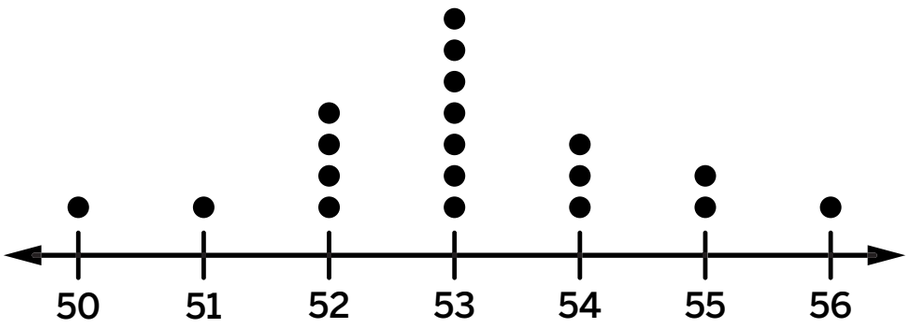
4 How many pencils are $6\frac{3}{4}$ inches long? _____

Name _____ Date _____

5 How many pencils were measured for the line plot? _____

6 What is the difference in height between the *tallest* student and the *shortest* student?

Heights of Students in Third Grade



Number of inches

(A) 3 inches (B) 6 inches (C) 6 inches (D) 9 inches

For Problems 7–14, determine the value of the expressions.

7 $4 \times 10 =$ _____

8 $3 \times 8 =$ _____

9 $5 \times 5 =$ _____

10 $7 \times 2 =$ _____

11 $6 \times 8 =$ _____

12 $7 \times 7 =$ _____

13 $9 \times 9 =$ _____

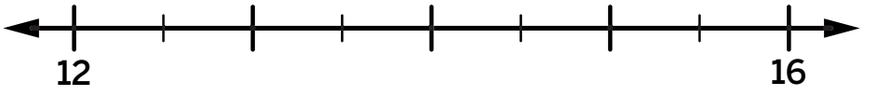
14 $2 \times 9 =$ _____

Name _____ Date _____

Additional Practice 6.06

1 The heights of some cornstalks, in feet, are shown in the table. Represent the data on a line plot.

Cornstalk Heights (feet)	16	14	12	$15\frac{1}{2}$	14	16	15
	$15\frac{1}{2}$	14	15	$14\frac{1}{2}$	$12\frac{1}{2}$	16	$13\frac{1}{2}$

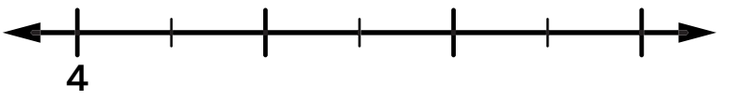


Number of feet

2 The shoe sizes of some students are shown in the table. Represent the data on a line plot.

Shoe Sizes	4	$4\frac{1}{2}$	$4\frac{1}{2}$	5	$5\frac{1}{2}$	$5\frac{1}{2}$	6	$6\frac{1}{2}$
	4	$4\frac{1}{2}$	5	5	$5\frac{1}{2}$	$5\frac{1}{2}$	6	7

Shoe Sizes

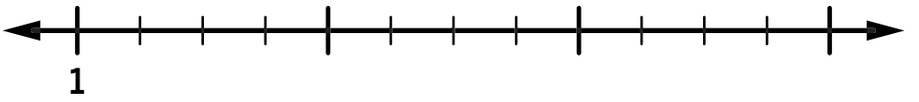


Name _____ Date _____

3 The lengths of some hiking trails are shown in the table. Represent the data on a line plot.

Hiking Trail Lengths (in miles)	$1\frac{1}{4}$	$1\frac{3}{4}$	2	$2\frac{1}{2}$	$2\frac{3}{4}$	$3\frac{1}{4}$	$3\frac{1}{2}$	$3\frac{3}{4}$
	$1\frac{1}{2}$	$1\frac{3}{4}$	2	$2\frac{3}{4}$	3	$3\frac{1}{4}$	$3\frac{1}{2}$	4

Hiking Trail Lengths



Number of miles

For Problems 4–13, determine the value of the expression

4 $2 \times 3 =$ _____

5 $4 \times 4 =$ _____

6 $5 \times 5 =$ _____

7 $6 \times 3 =$ _____

8 $8 \times 4 =$ _____

9 $9 \times 2 =$ _____

10 $7 \times 7 =$ _____

11 $5 \times 6 =$ _____

12 $9 \times 9 =$ _____

13 $5 \times 10 =$ _____

Name _____ Date _____

Additional Practice 6.07

For Problems 1–3, circle the object that could have a weight of more than 1 kilogram.

1 Which two objects could weigh about 1 kilogram?

(A) a book

(B) a pencil

(C) a feather

(D) a hammer

2 Which two objects could weigh about 1 gram?

(A) a brick

(B) an index card

(C) a bottle of water

(D) a leaf

3 Which two objects could weigh about 10 grams?

(A) a sewing needle

(B) a single grain of rice

(C) a pen

(D) a strawberry

Name _____ Date _____

4 Select whether each item weighs about *1 gram*, *about 100 grams*, or *about 1 kilogram*. Place a check mark in the correct column.

Item	About 1 gram	About 100 grams	About 1 kilogram
a small rubber band			
a medium tomato			
a pineapple			
a staple			
a hamster			
a bag of flour			
a lime			

For Problems 5–12, determine the value of the expression.

5 $2 \times 11 =$ _____

6 $4 \times 11 =$ _____

7 $3 \times 11 =$ _____

8 $9 \times 11 =$ _____

9 $5 \times 11 =$ _____

10 $6 \times 11 =$ _____

11 $7 \times 11 =$ _____

12 $8 \times 11 =$ _____

Name _____ Date _____

Additional Practice 6.08

1 Which 2 objects weigh *more* than 1 kilogram?

(A) a cat

(B) a paper clip

(C) a leaf

(D) a brick

2 What 2 objects weigh *less* than 1 kilogram?

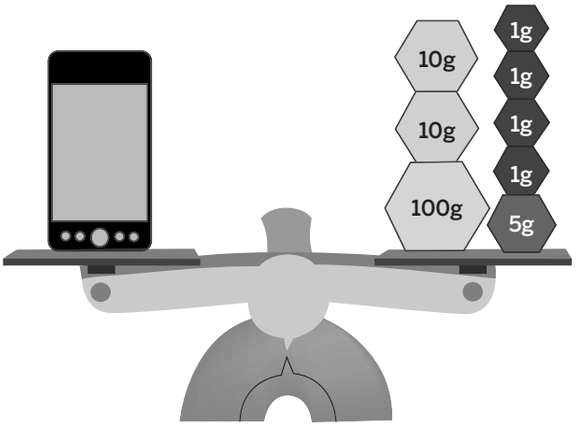
(A) a bowling ball

(B) a cherry

(C) a ruler

(D) a desk

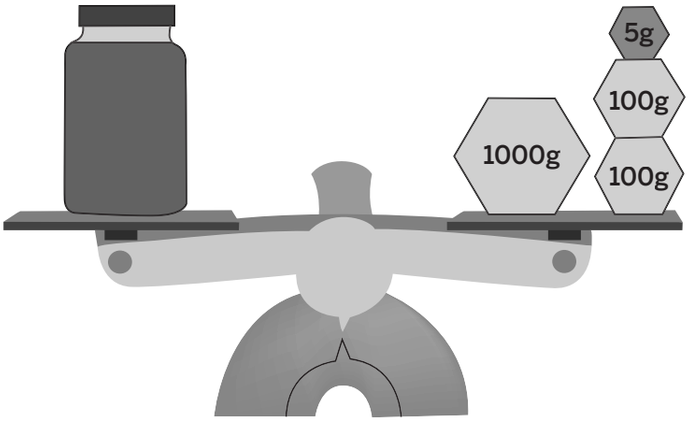
3 What is the weight of the cell phone?



answer: _____

Name _____ Date _____

4 What is the weight of the jar of strawberry jam?



answer: _____

For Problems 5–12, determine the value of the expression.

5 $10 \times 7 =$ _____

6 $3 \times 9 =$ _____

7 $6 \times 7 =$ _____

8 $2 \times 6 =$ _____

9 $5 \times 7 =$ _____

10 $7 \times 8 =$ _____

11 $9 \times 9 =$ _____

12 $4 \times 9 =$ _____

Name _____ Date _____

Additional Practice 6.09

For Problems 1–7, select whether each item can hold *more than 1 liter*, *less than 1 liter*, or *about 1 liter*. Place a check mark in the correct column.

	Item	more than 1 liter	less than 1 liter	about 1 liter
1	a large soup pot			
2	a fish bowl			
3	a jar of tomato sauce			
4	a bottle of ketchup			
5	a water cooler			
6	a bottle of medicine			
7	a juice box			

8 Select **2** containers that hold more than 1 liter.

(A) milk jug

(B) a tea cup

(C) a large pitcher of lemonade

(D) an eyedropper

Name _____ Date _____

9 Which of these holds about 1 liter of water?

(A) swimming pool

(B) lake

(C) water balloon

(D) water bottle

For Problems 10–19, determine the value of the expression

10 $3 \times 9 =$ _____

11 $4 \times 3 =$ _____

12 $5 \times 7 =$ _____

13 $2 \times 8 =$ _____

14 $6 \times 6 =$ _____

15 $7 \times 10 =$ _____

16 $3 \times 4 =$ _____

17 $5 \times 6 =$ _____

18 $2 \times 5 =$ _____

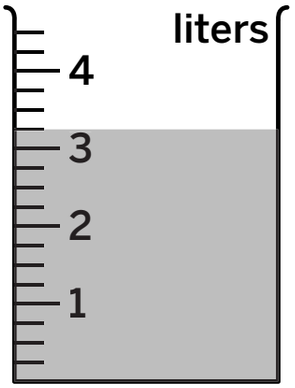
19 $6 \times 10 =$ _____

Name _____ Date _____

Additional Practice 6.10

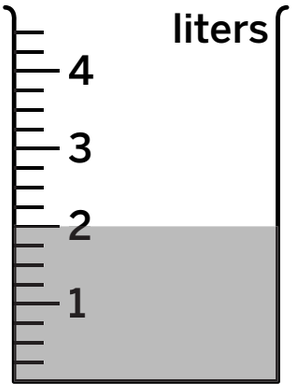
For Problems 1 and 2, determine the volume of the liquid shown in the containers. The containers are marked in liters.

1



answer: _____

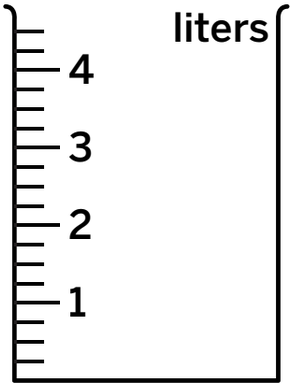
2



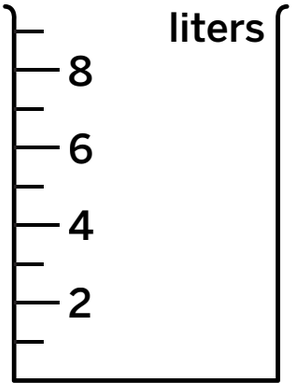
answer: _____

For Problems 3 and 4, shade the empty water container to represent the liquid volume. The containers are marked in liters.

3 2 3/4 liters

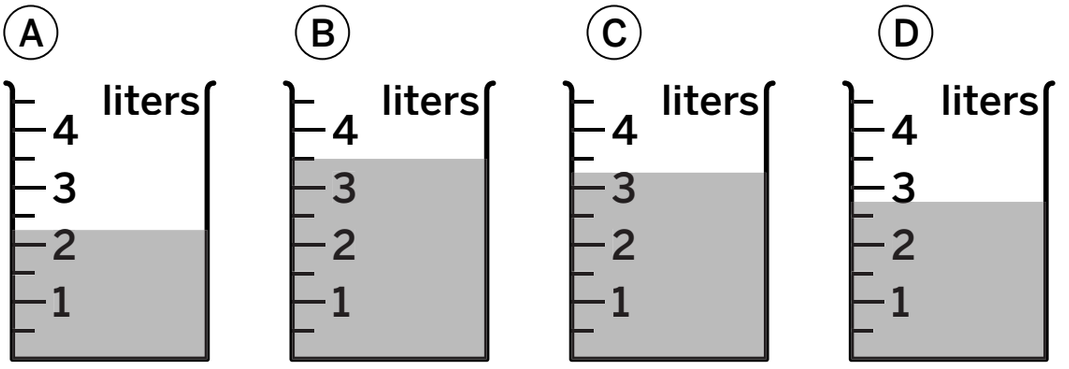


4 8 liters



Name _____ Date _____

5 Which container has the *most* volume?



For Problems 6–13, determine the value of the expression.

6 $3 \times 8 =$ _____

7 $5 \times 9 =$ _____

8 $2 \times 10 =$ _____

9 $3 \times 7 =$ _____

10 $6 \times 7 =$ _____

11 $6 \times 10 =$ _____

12 $8 \times 8 =$ _____

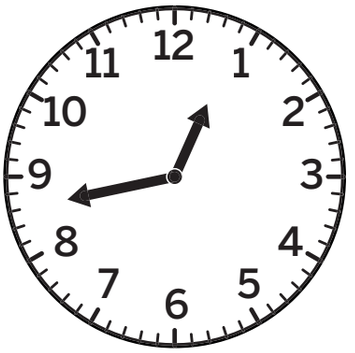
13 $4 \times 9 =$ _____

Name _____ Date _____

Additional Practice 6.11

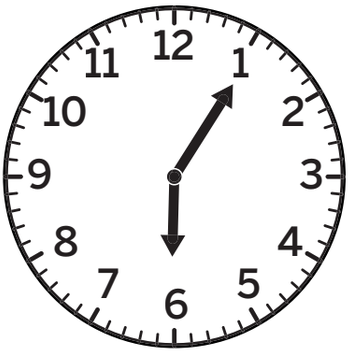
For Problems 1–3, write the time shown on the clock.

1



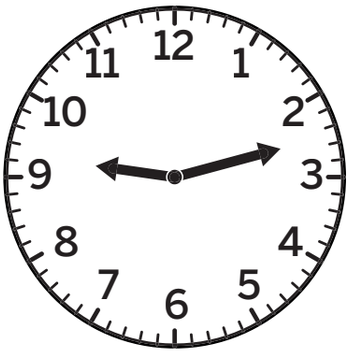
_____

2



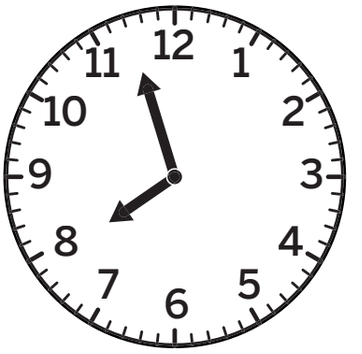
_____

3



_____

4 What time is shown on the clock?



(A) 8:55

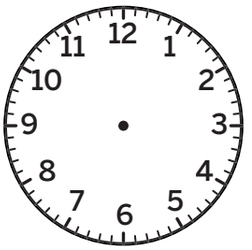
(B) 7:57

(C) 11:40

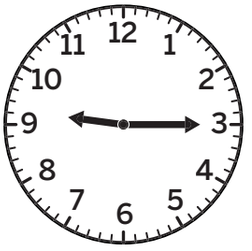
(D) 11:00

Name _____ Date _____

For Problems 5–8, match the clock with the correct time.

5 

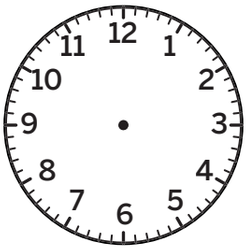
9:15

6 

6:36

7 

10:03

8 

5:45

For Problems 9–12, determine the value of the expression.

9 $2 \times 2 =$ _____

10 $4 \times 4 =$ _____

11 $6 \times 6 =$ _____

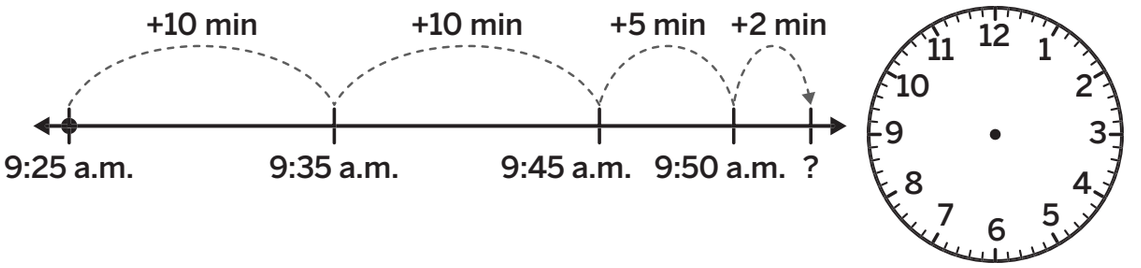
12 $8 \times 8 =$ _____

Name _____ Date _____

Additional Practice 6.12

1 Han planned a trip to the park. He arrived at the park at 9:25 am. He spent 27 minutes at the park. What time did he leave the park? Use the clock if it is helpful.

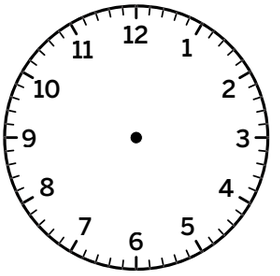
Show your thinking.



answer: _____

2 Diego went to the store. It took him 37 minutes to shop. He started at 2:05. What time did Diego leave the store? Use the clock if it is helpful.

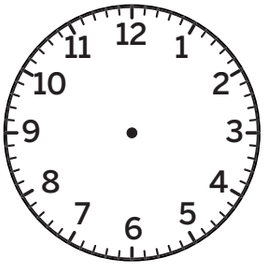
Show your thinking.



answer: _____

Name _____ Date _____

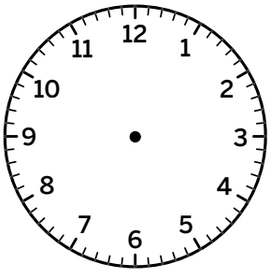
3 Clare worked out for 25 minutes in the morning. She ended her workout at 6:40. What time did she start her workout? Use the clock if it is helpful.



(A) 6:15
(B) 6:25
(C) 7:05
(D) 7:15

4 It takes Priya 31 minutes to bake muffins. She finished baking at 9:55. What time did she start making the muffins? Use the clock if it is helpful.

Show your thinking.



answer: _____

Problems 5–10, determine the value of the expression.

5 $4 \times 9 =$ _____

6 $6 \times 7 =$ _____

7 $5 \times 8 =$ _____

8 $3 \times 2 =$ _____

9 $8 \times 10 =$ _____

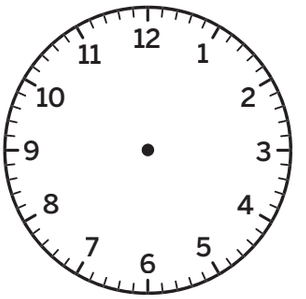
10 $2 \times 10 =$ _____

Name _____ Date _____

Additional Practice 6.13

1 Han walked home from school. He started to walk home at 4:27 p.m. and arrived home at 4:44 p.m. How long did it take Han to walk home from school? Use the clock if it is helpful.

Show your thinking.



answer: _____

2 Clare went for a jog that lasted from 3:49 p.m. to 4:13 p.m. How long did Clare jog?

Show or explain your thinking.

answer: _____

Name _____ Date _____

3 How long was Priya's gymnastics meet?

Time the gymnastics meet began

Time the gymnastics meet ended

(A) 18 minutes

(B) 28 minutes

(C) 32 minutes

(D) 38 minutes

Problems 4–10, determine the value of the expression.

4 $6 \times 4 =$ _____

5 $7 \times 2 =$ _____

6 $8 \times 5 =$ _____

7 $3 \times 10 =$ _____

8 $9 \times 7 =$ _____

9 $5 \times 5 =$ _____

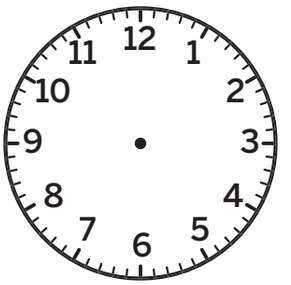
10 $7 \times 7 =$ _____

Name _____ Date _____

Additional Practice 6.14

1 Diego left his house to go for a walk. He walked for 27 minutes and was home at 5:13 p.m. What time did Diego leave his house to go for walk? Use the clock if it is helpful.

Show your thinking.



answer: _____

2 Write and solve an elapsed time problem.

Show your thinking.

answer: _____

Name _____ Date _____

For Problems 3–7, determine the value of the expression.

3 $3 \times 3 =$ _____

4 $5 \times 5 =$ _____

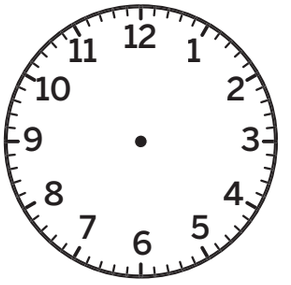
5 $8 \times 8 =$ _____

6 $4 \times 4 =$ _____

7 $9 \times 9 =$ _____

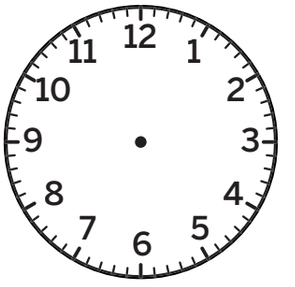
8 Han started reading his book at 10:25 a.m. and finished reading at 11:17 a.m. How long did Han spend reading his book? Use the clock if it is helpful.

Show or explain your thinking.



answer: _____

9 Clare started planning her best friend's party at 2:20 p.m. She finished planning at 3:03 p.m. How long did Clare spend planning the party?



(A) 15 minutes

(B) 43 minutes

(C) 50 minutes

(D) 45 minutes

Name _____ Date _____

Additional Practice 6.15

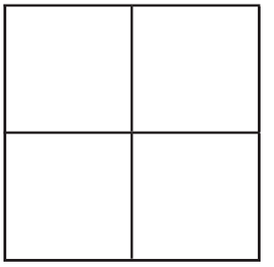
For Problems 1 and 2, represent the story problem and solve using any strategy.

Show your thinking.

1 Han wants to evenly split 32 liters of lemonade into 8 pitchers. How many liters will be in each pitcher?

answer: _____

2 Priya makes 4 liters of smoothie mix. Each liter makes 15 servings. How many servings will she have when she uses all of her mix?



answer: _____

Name _____ Date _____

3 Clare is filling up a kiddie pool with water. The pool can hold 56 liters of water, and Clare has a bucket that holds 7 liters. How many times does Clare need to fill her bucket to fill the pool all the way up?

(A) 7 times

(B) 4 times

(C) 8 times

(D) 9 times

For Problems 4–10, determine the value of the expression.

4 $9 \times 2 =$ _____

5 $4 \times 5 =$ _____

6 $6 \times 3 =$ _____

7 $8 \times 2 =$ _____

8 $6 \times 8 =$ _____

9 $3 \times 9 =$ _____

10 $4 \times 8 =$ _____

Name _____ Date _____

Additional Practice 6.16

For Problems 1–3, represent the story problem and solve using any strategy.

Show your thinking.

1 Diego's dog eats 6 kilograms of dog food each week. Diego buys a 24-kilogram bag of dog food. How many weeks will Diego's dog have food from the bag?

answer: _____

2 You are using flour for a baking project. You have 250 grams of flour from one bag, 200 grams from another, and 175 grams from a third. If the recipe calls for 1,000 grams of flour, how many more grams do you need?

answer: _____

Name _____ Date _____

3 A farmer has 81 pounds of potatoes to divide evenly between 3 bins. How many pounds of potatoes will the farmer put in each bin?

Show your thinking.

answer: _____

equation: _____

Problems 4–9, determine the value of the expression.

4 $7 \times 9 =$ _____

5 $6 \times 8 =$ _____

6 $4 \times 10 =$ _____

7 $5 \times 3 =$ _____

8 $7 \times 7 =$ _____

9 $7 \times 10 =$ _____

10 The largest vegetable at the fair this year weighed 456 kilograms. This was 132 kilograms heavier than last year's largest vegetable. What was the weight of the largest vegetable last year?

(A) 345 kilograms

(B) 324 kilograms

(C) 588 kilograms

(D) 300 kilograms

Name _____ Date _____

Additional Practice 6.17

For Problems 1–3, represent the story problem and solve using any strategy.

Show or explain your thinking.

1. Diego needed to paint 9 rooms. Each room takes 3 hours to paint. How long will it take Diego to paint all of the rooms?

   answer: _____

2. A bookcase holds 81 books. If each shelf holds 9 books, how many shelves are there?

   answer: _____

3. Priya started playing a video game at 5:25 p.m. She played for 45 minutes. What time did Priya stop playing the video game?

   answer: _____

Name _____ Date _____

4 Han started jogging at 6:14 a.m. He jogged for 25 minutes. What time did Han stop jogging?

(A) 7:00 a.m.

(B) 6:45 a.m.

(C) 6:39 a.m.

(D) 7:05 a.m.

For Problems 5–10, determine the value of the expression.

5 $4 \times 3 =$ _____

6 $6 \times 6 =$ _____

7 $9 \times 9 =$ _____

8 $3 \times 10 =$ _____

9 $7 \times 7 =$ _____

10 $2 \times 9 =$ _____

11 A polar bear at the zoo weighs 546 kilograms. A second polar bear weighs 127 kilograms less. How much does the second polar bear weigh?

(A) 419 kilograms

(B) 673 kilograms

(C) 401 kilograms

(D) 441 kilograms

Grade 3 | Unit 7

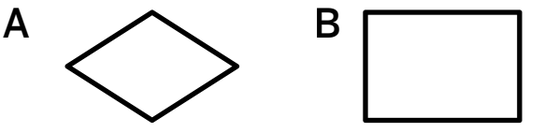
Additional Practice

Practice Problems

Name _____ Date _____

Additional Practice 7.02

Here are 2 quadrilaterals.

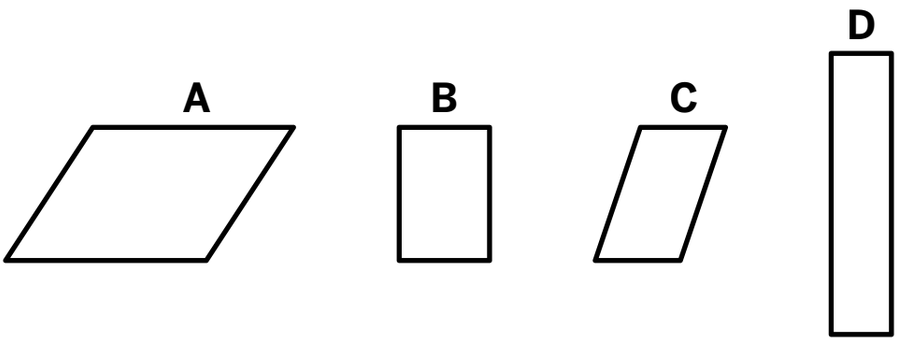


1 Select 1 attribute that the quadrilaterals share.

(A) They have 2 opposite sides that are the same length.

(B) They have 4 sides that are the same length.

For Problems 2–4, use the quadrilaterals A-D.



2 Choose 1 of the quadrilaterals to be your shape. Write clues to describe your shape and none of the other shapes.

_____

_____

3 Select 1 attribute Quadrilaterals B and D have in common.

(A) They have 4 square corners.

(B) They have 4 sides with equal length.

Name _____ Date _____

4 Name 1 attribute Quadrilaterals C and D share. Then name 1 way they are different.

_____

_____

_____

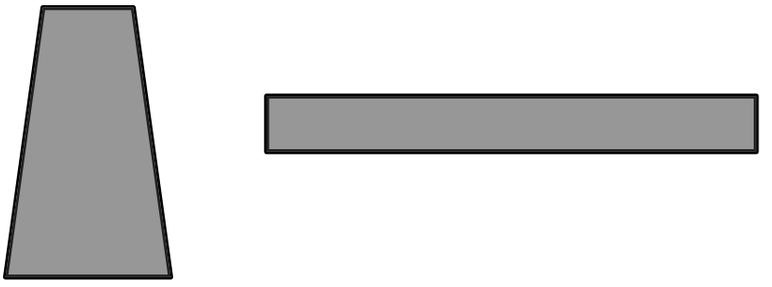
5 Clare said that any quadrilateral with square corners is a square. Is she correct? Explain your thinking.

_____

_____

_____

6 Here are 2 quadrilaterals.



Select *all* the attributes that the quadrilaterals share.

(A) 4 square corners

(B) 4 sides

(C) 2 opposite side lengths that are the same length.

(D) 2 square corners

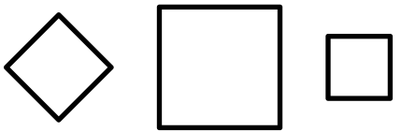
(E) 4 corners

Name _____ Date _____

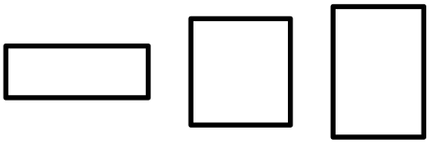
Additional Practice 7.03

Here are squares and rectangles. For Problems 1 and 2, fill in the blanks to show ways that both squares and rectangles are alike and different.

Squares



Rectangles



1 Ways they are alike:

Squares and rectangles have _____ straight sides.

Squares and rectangles have _____ square corners.

2 Ways they are different

_____ always have _____ equal lengths.

3 Select *all* the attributes of a rhombus.

- (A) 4 square corners
- (B) 4 corners
- (C) polygon
- (D) 4 unequal side lengths

Name _____ Date _____

4 Explain why this figure is a quadrilateral but not a rectangle.

_____

_____

_____

For Problems 5–7, read the description and fill in the blank with the correct quadrilateral.

5 I have 4 square corners, and 4 sides that are the same length.

_____

6 I have 4 square corners, and opposite sides that are the same length.

_____

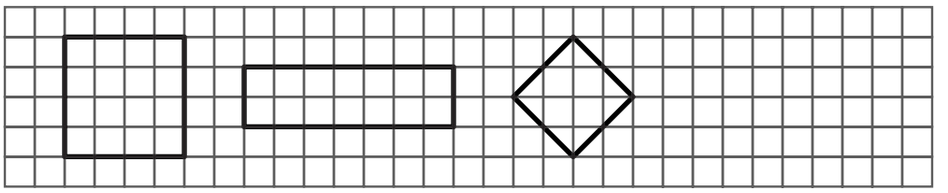
7 I have 4 sides that are the same length, and no square corners.

_____

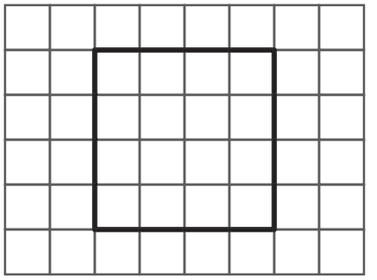
Name _____ Date _____

Additional Practice 7.04

1 Here are 3 rectangles. Draw a quadrilateral that is *not* a rectangle. Explain why it is not a rectangle.



2 Han said he drew a rectangle. Do you agree?

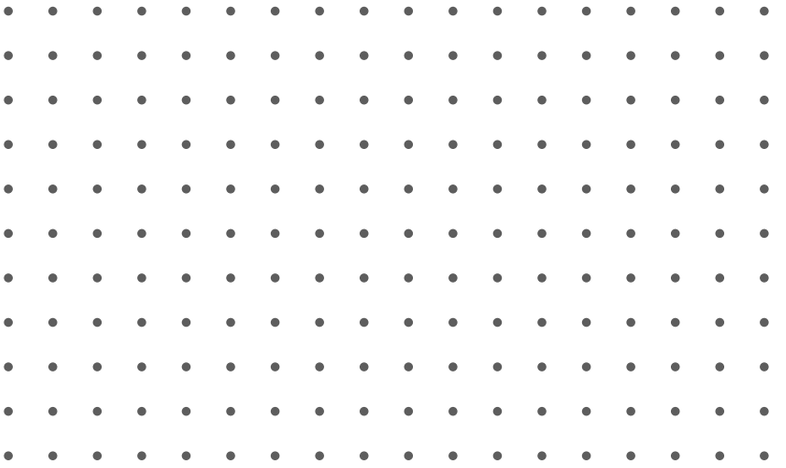


Name _____ Date _____

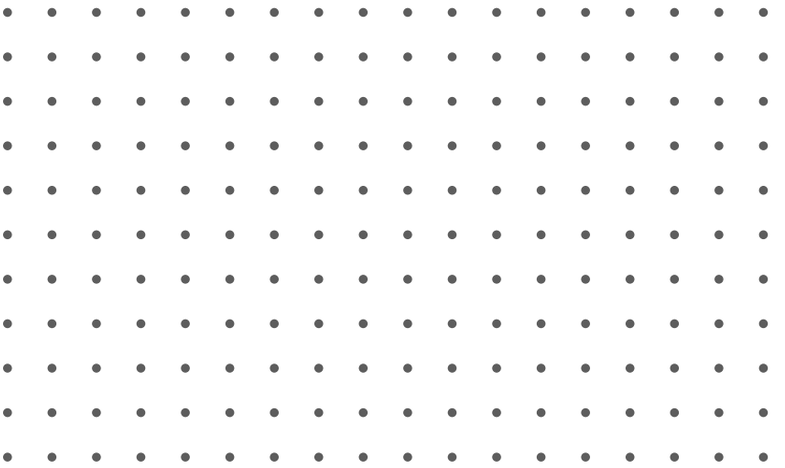
Use the dot grid for Problems 3 and 4.

Draw

3 Draw a quadrilateral that is not a square.



4 Draw a quadrilateral that is not a rhombus.



5 A square and a rhombus are quadrilaterals. Select *all* the attributes they share.

(A) 4 straight sides

(B) 4 equal lengths

(C) 4 square corners

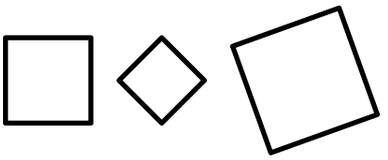
(D) 2 pairs of different side lengths

Name _____ Date _____

Additional Practice 7.05

For Problems 1–5, use the quadrilaterals that have been sorted into 2 groups.

A



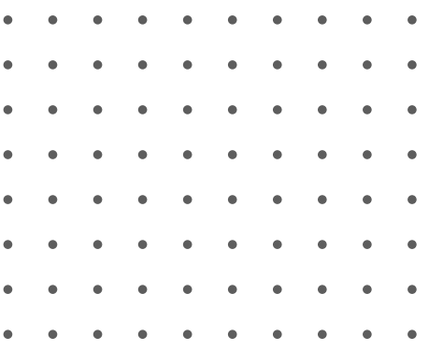
B

1 Describe the quadrilaterals in Group A.

2 Describe the quadrilaterals in Group B.

3 How are the shapes in Group A and Group B alike.

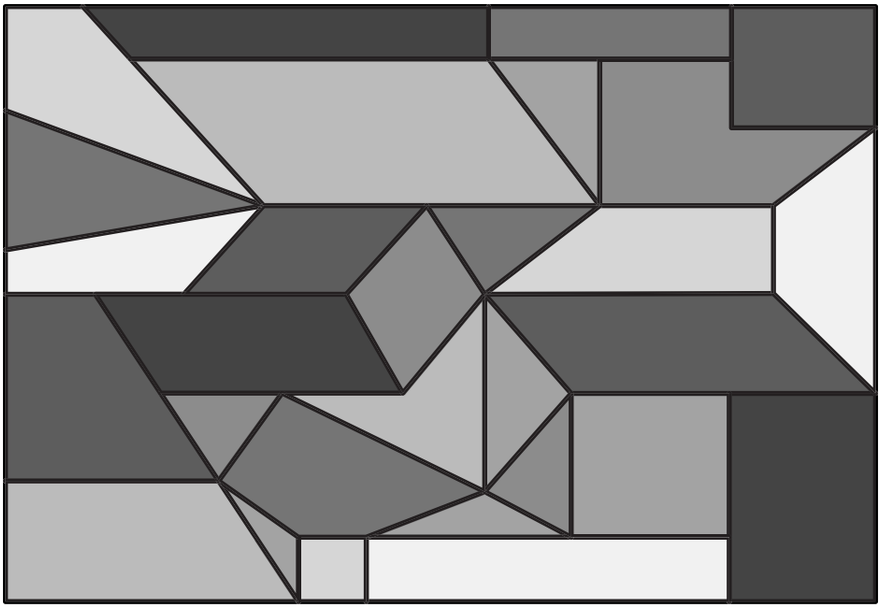
4 On the grid, draw a quadrilateral that would NOT belong in Group A or Group B.



Name _____ Date _____

5 Which quadrilateral would belong in Group B?

Use the image below for Problems 6 and 7.



6 Circle one square in the pattern.

7 Draw a box around 1 quadrilateral that is not a square. Explain how you know it is not a square. Draw a rectangle around a parallelogram in the pattern.

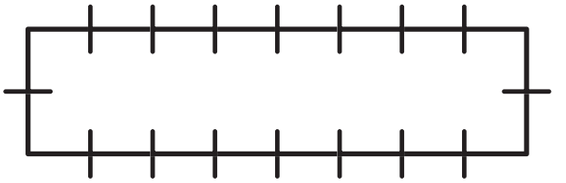
Name _____ Date _____

Additional Practice 7.06

For Problems 1–3, determine the perimeter of the shape. The distance between 2 tick marks is 1 unit.

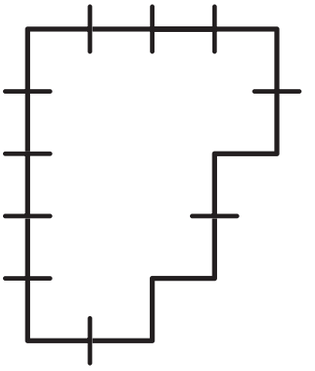
Show your thinking.

1



answer: _____

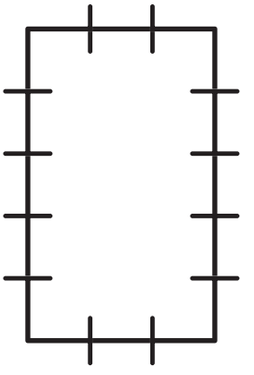
2



answer: _____

Show your thinking.

3

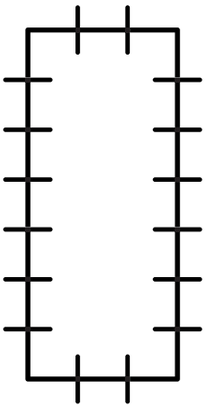


answer: _____

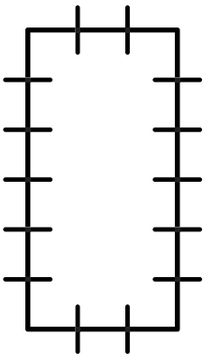
Name _____ Date _____

4 Which shape has a perimeter of 20 units? The distance between 2 tick marks is 1 unit.

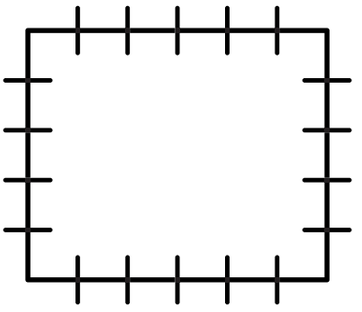
A



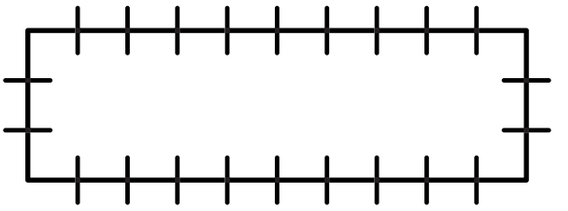
B



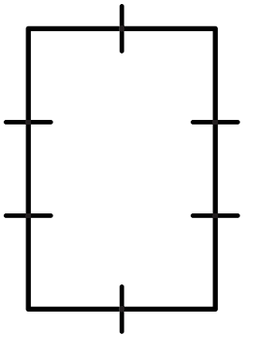
C



D



5 Han says the perimeter of the shape is 6 units. Do you agree? Explain your thinking.

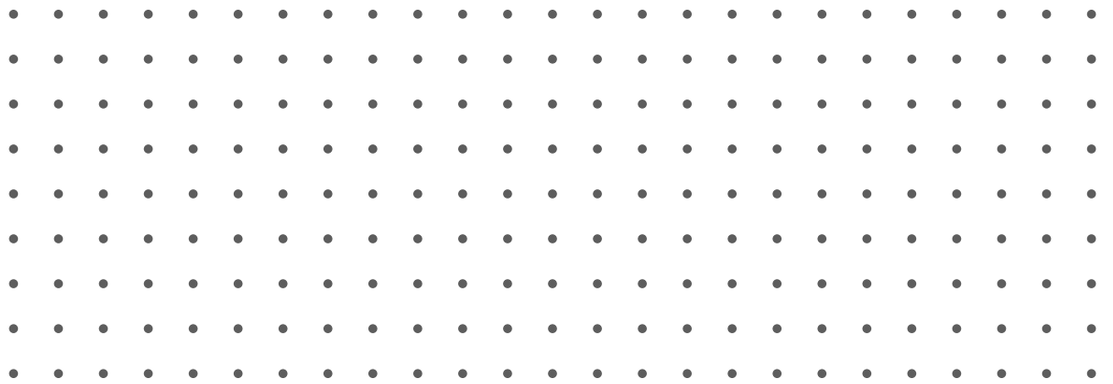


Name _____ Date _____

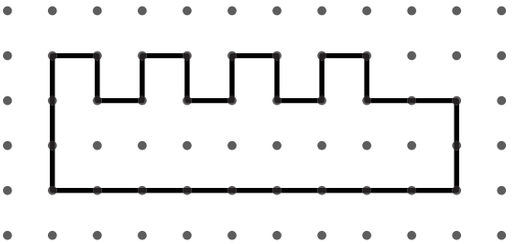
Additional Practice 7.07

1 Draw 2 different shapes with a perimeter of 20 units.

Draw



2 Priya's outdoor rug is shown below. What is the perimeter?

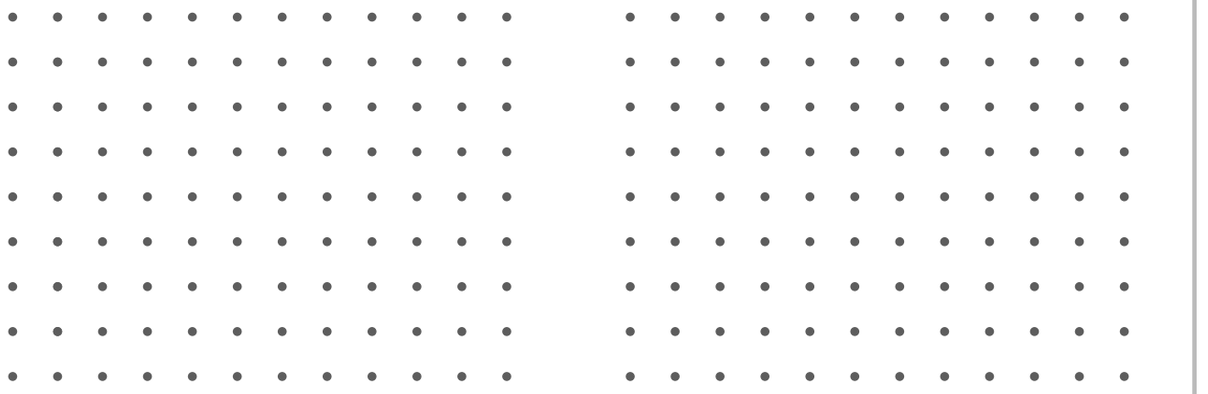


answer: _____

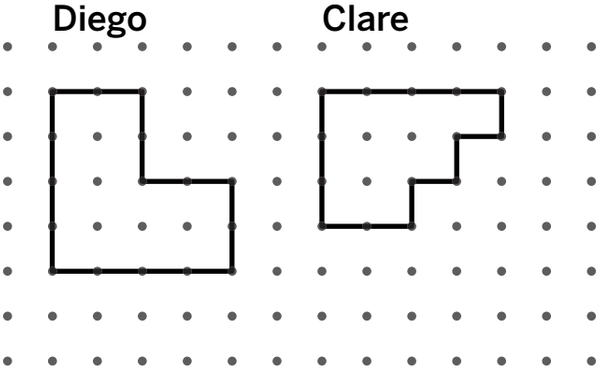
Name _____ Date _____

3 Draw 2 different shapes with a perimeter of 22 units.

Draw



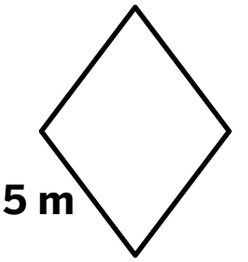
4 Diego and Clare are making a garden. They both draw how they want their garden to look. Whose garden has the greater perimeter? Explain how you know.



Name _____ Date _____

Additional Practice 7.08

1 All sides of a rhombus are the same length. What is the perimeter of this rhombus?



(A) 10 meters

(B) 15 meters

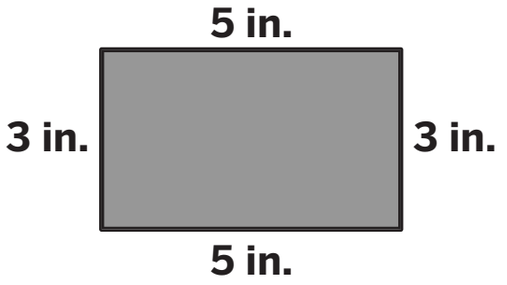
(C) 20 meters

(D) 25 meters

For Problems 2–5, determine the perimeter of the shape.

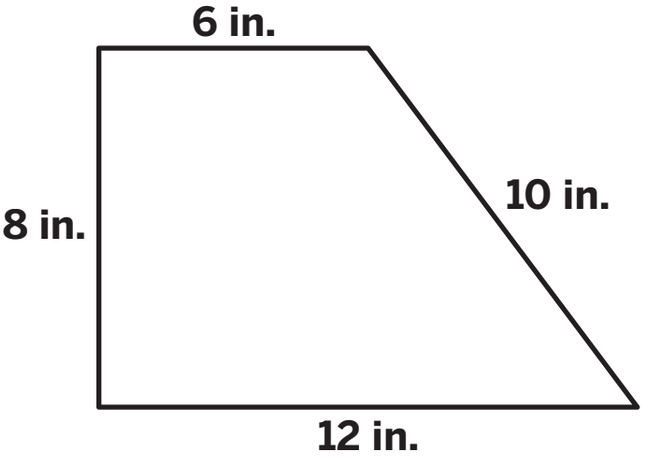
Show your thinking.

2



answer: _____

3

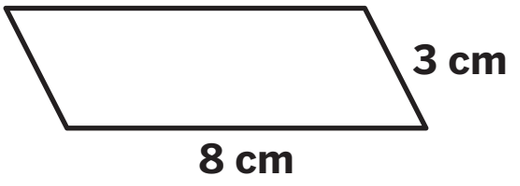


answer: _____

Name _____ Date _____

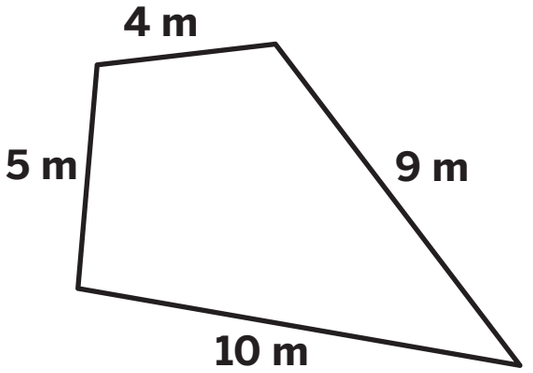
Show your thinking.

4



answer: _____

5



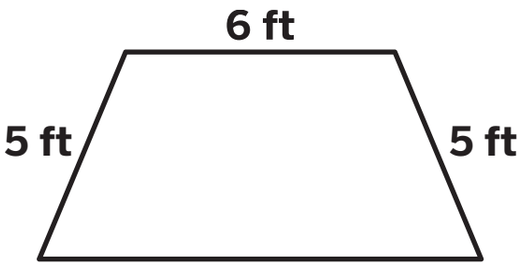
answer: _____

Name _____ Date _____

Additional Practice 7.09

1 A pool has a perimeter of 26 feet. Determine the length of the unlabeled side.

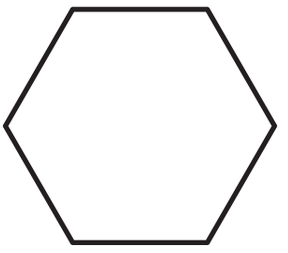
Show or explain your thinking



answer: _____

2 Han is making a cage for his pet lizard in the shape of a hexagon with equal sides. He wants the perimeter of the cage to be 48 inches. What is the length of each side?

Show or explain your thinking



answer: _____

Name _____ Date _____

3 A rectangle has a perimeter of 40 feet. Determine the lengths of the unlabeled sides. Add the labels to the rectangle.

Show your thinking

4 The perimeter of a square is 40 inches. How long is each side of the square?

Show your thinking

5 A rectangular rug has a length of 10 feet and a width of 5 feet. What is the perimeter of the rug?

(A) 15 ft (B) 25 ft (C) 30 ft (D) 50 ft

Name _____ Date _____

Additional Practice 7.10

1 A rectangular piece of wood has one side that measures 7 feet. Another side measures 6 feet. What is the area of the piece of wood in square feet?

(A) 16 square feet

(B) 34 square feet

(C) 36 square feet

(D) 42 square feet

2 Select *all* the expressions that could represent the area of a room that measures 24 square feet.

(A) 8×3 (B) 10×2 (C) 6×4 (D) 2×12 (E) $4+4+4+4$

Use the information for Problems 3 and 4.

A rectangular sand pit has an area of 45 square feet. The long side of the sand pit measures 9 feet.

3 Determine the length of the short side of the sand pit.

Show or explain your thinking

answer: _____

Name _____ Date _____

4 Determine the perimeter of the sand pit.

Show your thinking

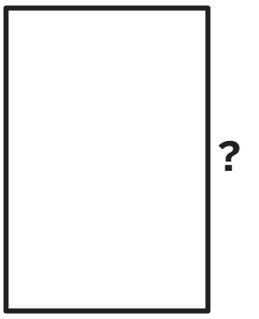
answer: _____

Use the information for Problems 5 and 6.

Diego wanted to paint a rectangular wall in his bedroom. The length of the wall is 6 feet and the area is 54 square feet.

Show or explain your thinking

5 What is the height of the wall?



answer: _____

6 Determine the perimeter of the wall.

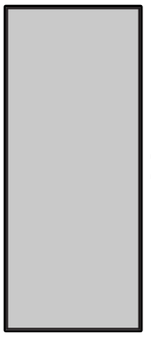
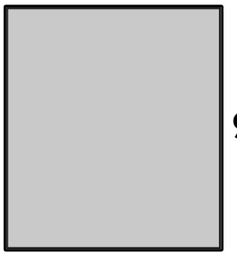
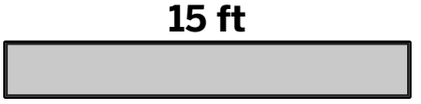
Show your thinking

answer: _____

Name _____ Date _____

Additional Practice 7.11

For Problems 1–4, determine the perimeter and area of the rectangles.

	Perimeter	Area
1 		
2 		
3 		
4 		

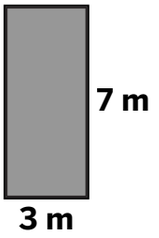
Name _____ Date _____

5 Draw 2 rectangles with a perimeter of 22 units but different areas.

Draw

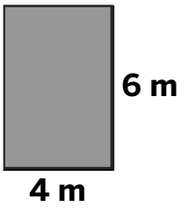
6 Which 2 rectangles have the same perimeter?

A

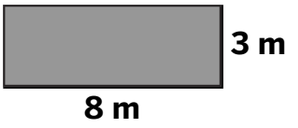


B

C



D



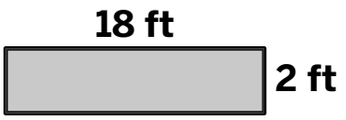
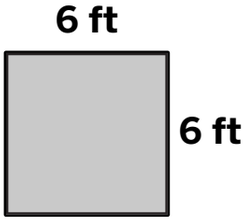
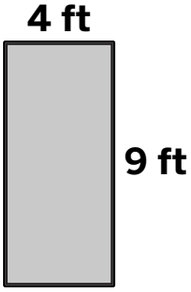
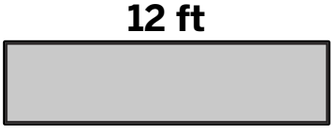
7 What is the perimeter of a square that has a side length of 8 units?

Show your thinking.

Name _____ Date _____

Additional Practice 7.12

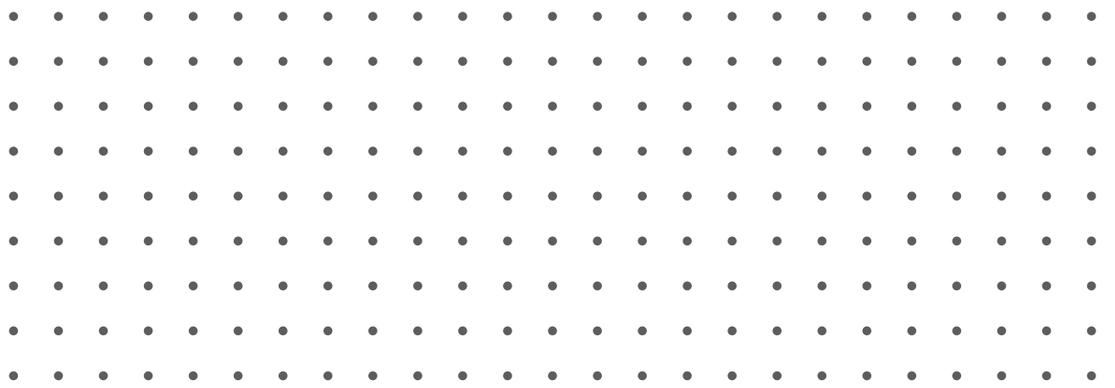
For Problems 1–4, determine the perimeter and area of the rectangles.

	Perimeter	Area
1 		
2 		
3 		
4 		

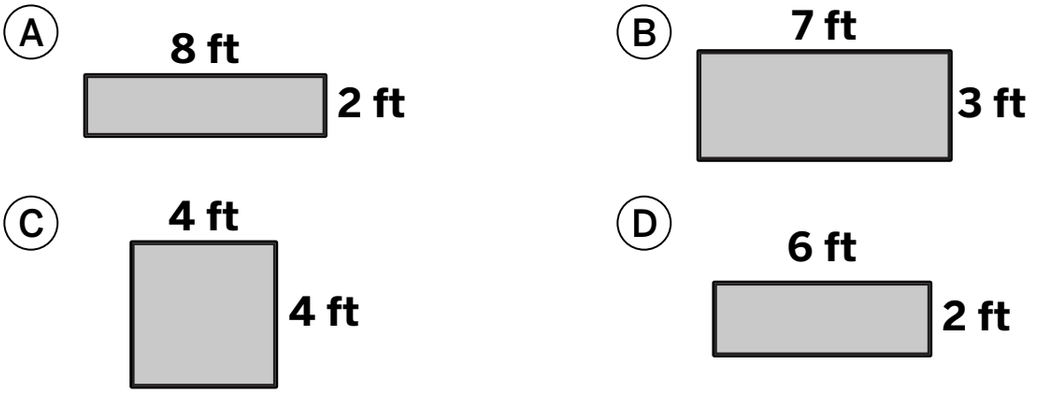
Name _____ Date _____

5 Draw 2 rectangles that have an area of 24 square units and different perimeters. Then write the perimeter inside the rectangle.

Draw



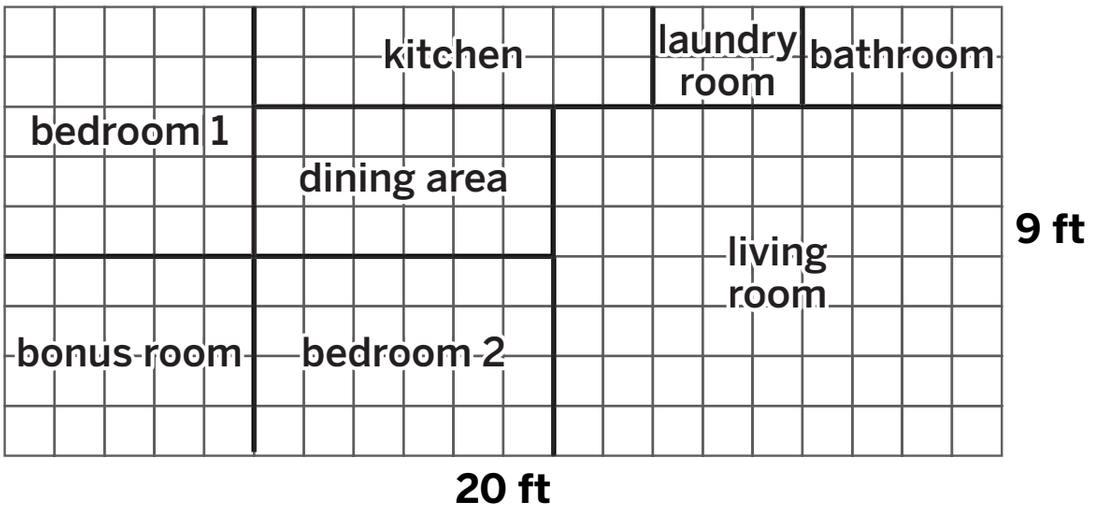
6 Select 2 rectangles that have the same area and different perimeters.



Name _____ Date _____

Additional Practice 7.13

Use the design of a tiny house for Problems 1–7.



1 What is the perimeter of the entire tiny house?

_____

2 What is the area of the entire tiny house?

_____

Name _____ Date _____

3 Record the perimeter and area for the rooms.

Feature	Perimeter	Area
bedroom 1		
bedroom 2		
bonus room		
bathroom		
living room		
laundry room		
kitchen		
dining area		

4 Which feature has the greatest perimeter?

_____

5 Which feature has the greatest area?

_____

6 Which feature has the least perimeter?

_____

7 Which feature has the least area?

_____