

Amplify Desmos Math

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# Grade 5

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**Additional Practice**  
Student Resources

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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.

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# Contents

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## Practice Problems

<b>Unit 1</b> Volume .....	<b>1</b>
<b>Unit 2</b> Fractions as Quotients and Fraction Multiplication .....	<b>27</b>
<b>Unit 3</b> Multiplying and Dividing Fractions .....	<b>55</b>
<b>Unit 4</b> Multiplication and Division With Multi-Digit Whole Numbers .....	<b>83</b>
<b>Unit 5</b> Place Value Patterns and Decimal Operations .....	<b>117</b>
<b>Unit 6</b> More Decimal and Fraction Operations .....	<b>163</b>
<b>Unit 7</b> Geometry and Patterns .....	<b>199</b>



Grade 5

Unit 1

# Additional Practice

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## Practice Problems



# Additional Practice

1.02

- 1** Lila used 20 unit cubes to construct a model. What is the volume of the model?

\_\_\_\_\_ cubic units.

- 2** Build 3 different figures using unit cubes. Then, determine and record the volume of each figure.

Number of Cubes Used	Volume
5	_____ cubic units
10	_____ cubic units
20	_____ cubic units

**For Problems 3–5, determine whether the statement is *true* or *false*.**

- 3** The volume of an object is the total number of unit cubes used to create the object.

\_\_\_\_\_

- 4** As more unit blocks are added to a structure, the volume of the structure increases.

\_\_\_\_\_

- 5** A wider object always has a greater volume.

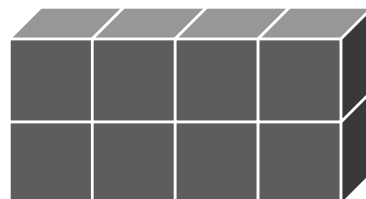
\_\_\_\_\_

Name \_\_\_\_\_ Date \_\_\_\_\_

**Complete the statement.**

- 6 If Object 1 occupies less space than Object 2, then \_\_\_\_\_ has a smaller volume.

**Look at the figure shown.**



- 7 Han says the figure has a volume of 7 cubic units. Do you agree or disagree? Explain your reasoning.

**Show your thinking.**

A large rounded rectangular box for writing the student's reasoning.

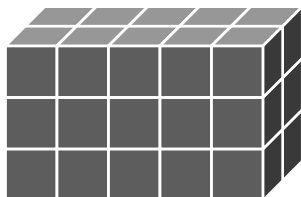
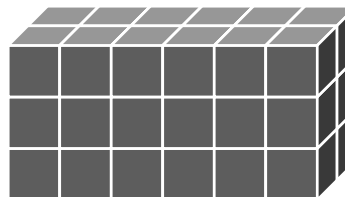
- 8 Draw two different figures that each have a volume of 10 unit cubes.

**Draw**

A large rounded rectangular box for drawing two different figures. A vertical dotted line is drawn down the center of the box to separate the two drawing areas.

**Additional Practice****1.03**

Priya and Clare used unit cubes to build a rectangular prism with a volume of 30 unit cubes.

**Priya****Clare**

- 1** Circle the name of the student who built the prism with the correct volume:

Priya

Clare

- 2** Diego used 27 unit cubes to build a rectangular prism. What could the dimensions of the prism be?

- (A) 1 layer of 3 rows with 8 connecting cubes.
- (B) 1 layer of 5 rows with 5 connecting cubes.
- (C) 2 layers of 2 rows with 6 connecting cubes.
- (D) 3 layers of 3 rows with 3 connecting cubes.

- 3** Han used 24 unit cubes to build a rectangular prism. What could the dimensions of the prism look like? Select all that apply.

- (A) There are 24 unit cubes in 1 layer. There are 2 layers.
- (B) There are 3 identical layers. In each layer, the unit cubes are arranged in 4 rows with 2 unit cubes in each row.
- (C) There are 2 layers. Each layer is arranged in 3 rows with 4 unit cubes in each row.
- (D) There are 4 layers of 3 columns with 2 unit cubes in each column.

Name \_\_\_\_\_ Date \_\_\_\_\_

- 4** Mia used 48 toy blocks to build a rectangular prism. What could the dimensions of the prism look like?

\_\_\_\_\_

- 5** A rectangular prism has 15 unit cubes in the front layer and 15 unit cubes in the back layer. What is the volume of the rectangular prism?

\_\_\_\_\_

- 6** Lila used 72 building blocks to build a rectangular prism. What could the dimensions of the prism look like?

\_\_\_\_\_

- 7** Describe how to build 3 different rectangular prisms that have the same volume of 12 unit cubes. Record the number of layers, rows, and the number of unit cubes for each rectangular prism.

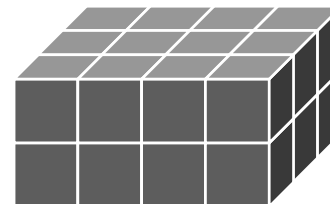
Number of Unit Cubes	Dimensions	Volume
12	_____ layers of _____ rows of _____ unit cubes =	_____ cubic units
12	_____ layers of _____ rows of _____ unit cubes =	_____ cubic units
12	_____ layers of _____ rows of _____ unit cubes =	_____ cubic units

# Additional Practice

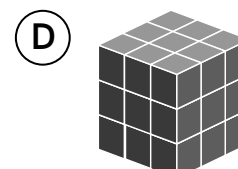
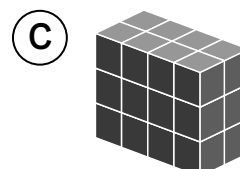
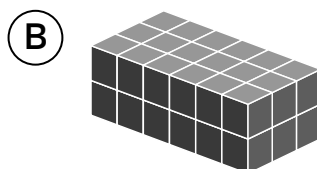
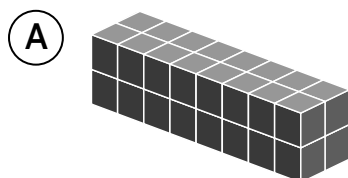
1.04

- 1 Determine the volume of the rectangular prism.

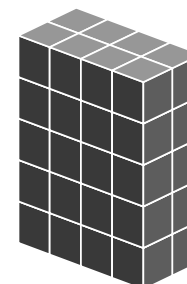
\_\_\_\_\_ cubic units



- 2 Which figure has a volume of 24 unit cubes?



- 3 Determine the volume of the rectangular prism. Show or explain your thinking.



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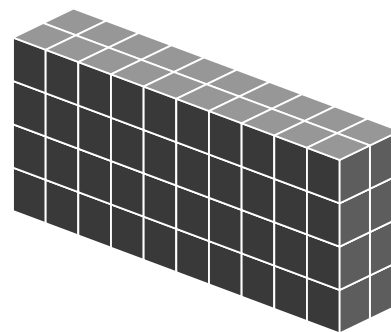
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answer: \_\_\_\_\_

Name \_\_\_\_\_ Date \_\_\_\_\_

- 4** Priya says that the volume of the rectangular prism is 60 unit cubes because there are 3 layers of 20 unit cubes. Do you agree or disagree with Priya? Explain your thinking.

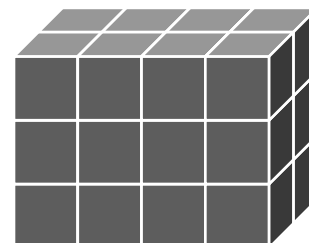


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- 5** Which two statements could be used to describe how the rectangular prism is composed?

- A** The rectangular prism is composed of 3 layers of 6 cubes.
- B** The rectangular prism is composed of 3 layers of 8 cubes.
- C** The rectangular prism is composed of 4 layers of 4 cubes.
- D** The rectangular prism is composed of 4 layers of 6 cubes.

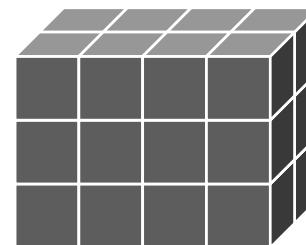


# Additional Practice

1.05

Use the prism for Problems 1 and 2.

- 1 Write 2 different multiplication expressions to represent the volume of the rectangular prism.



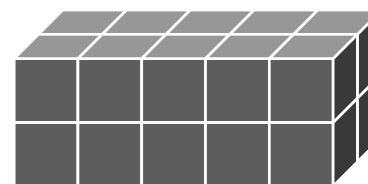
expression 1: \_\_\_\_\_

expression 2: \_\_\_\_\_

- 2 What is the volume of the prism? \_\_\_\_\_

Use the prism for Problems 3 and 4.

- 3 Write 3 different multiplication expressions to represent the volume of the rectangular prism.



expression 1: \_\_\_\_\_

expression 2: \_\_\_\_\_

expression 3: \_\_\_\_\_

- 4 What is the volume of the prism? \_\_\_\_\_

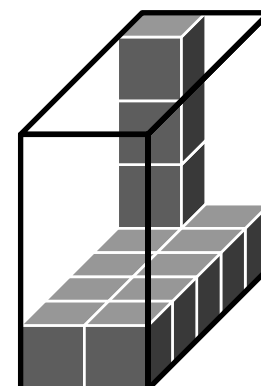
- 5 Which expressions represent the volume of the rectangular prism? Select *all* that apply.

(A)  $5 \times 8$

(B)  $4 \times 10$

(C)  $20 \times 2$

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



Name \_\_\_\_\_ Date \_\_\_\_\_

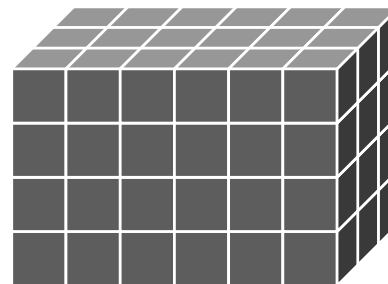
**6** Which expressions represent the volume of the rectangular prism? Select *all* that apply.

(A)  $3 \times 4 \times 6$

(B)  $24 \times 3$

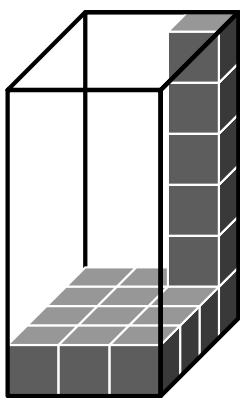
(C)  $12 \times 2$

(D)  $4 \times 6 \times 3$



**7** Determine the volume of the rectangular prism.

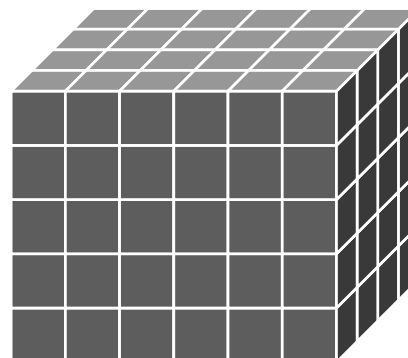
**i** Show or explain your thinking.



answer: \_\_\_\_\_ unit cubes

**8** Determine whether each expression represents the volume of the rectangular prism. Place a check mark in the correct column.

Expression	Yes	No
$4 \times 5$		
$6 \times 5 \times 4$		
$12 \times 12$		
$30 \times 4$		
$6 \times 10$		



# Additional Practice

1.06

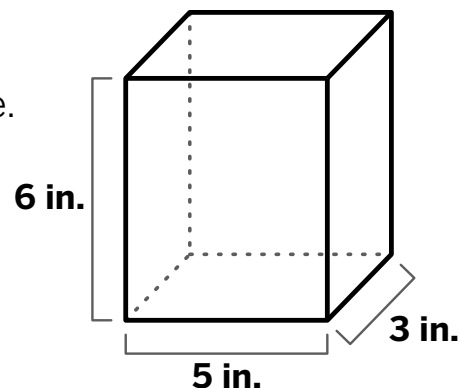
Use the rectangular prism for Problems 1 and 2.

- 1 Write an expression that represents the volume.

expression: \_\_\_\_\_

- 2 What is the volume?

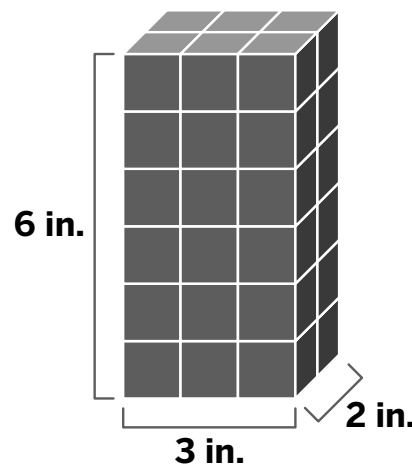
\_\_\_\_\_ cubic inches.



Use the rectangular prism for Problems 3 and 4.

- 3 Which expression represents the volume of the rectangular prism in cubic inches? Select *all* that apply.

- (A)  $3 \times 2 \times 6$
- (B)  $3 + 2 + 6$
- (C)  $6 \times 2 \times 3$
- (D)  $6 + 5 \times 3$
- (E)  $6 \times 2 + 3$
- (F)  $5 \times 6 \times 3$



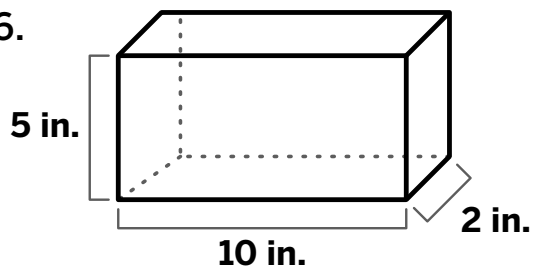
- 4 What is the volume of the rectangular prism?

\_\_\_\_\_

Name \_\_\_\_\_ Date \_\_\_\_\_

Use the rectangular prism for Problems 5 and 6.

- 5 Could the expression  $7 \times 10$  be used to determine the volume of the rectangular prism in cubic inches? Explain your thinking.




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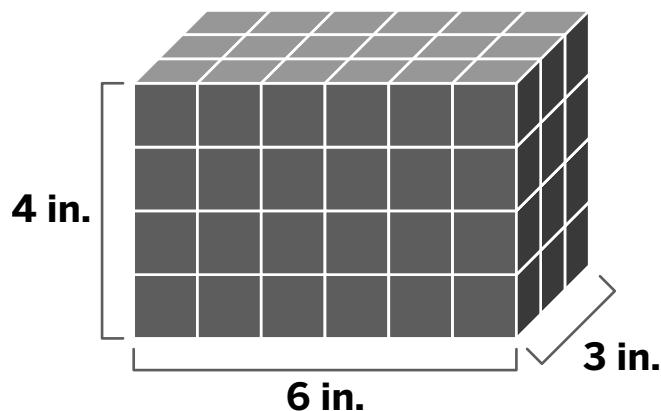
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- 6 The expression  $4 \times 15$  represents the volume of a rectangular prism. Write 2 possibilities for the length, width, and height of the prism.

---

- 7 Determine whether each expression represents the volume of the rectangular prism in cubic inches. Place a check mark in the correct column.

	Yes	No
$4 \times 3 \times 6$		
$4 + 3 + 6$		
$6 \times 3 \times 4$		
$4 + 3 \times 6$		
$3 \times 4 \times 6$		



- 8 What is the volume of the rectangular prism?

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## Additional Practice

1.07

**1** Determine the best unit of measure for the volume of a refrigerator.

- (A) cubic centimeters     
  (B) cubic inches     
  (C) cubic feet

**2** For each object, select the most appropriate unit you could use to measure the volume — cubic centimeters, cubic inches, or cubic feet.

Object	Cubic unit
Laptop	
Shipping crate	
Closet	
Pencil case	
Swimming pool	
Microwave	

**3** Which statements are correct? Select *all* that apply.

- (A) The smaller the unit of length used, the smaller the numerical value representing the length.
- (B) The smaller the unit of length used, the greater the numerical value representing the length.
- (C) The actual length of an object changes depending on the unit of length used.
- (D) Regardless of the unit of length used, the actual length of the object remains the same, but the numerical value representing it will vary.

Name \_\_\_\_\_ Date \_\_\_\_\_

**4** A storage warehouse is used to store large quantities of goods. Clare says that the best unit to measure the volume of the warehouse is cubic centimeters. Do you agree with Clare? Explain your reasoning.

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**5** Han wants to keep his basketball cards in a shoebox. He decides to measure the volume of the shoebox. Which unit of measure is best for Han to use? Explain your thinking.

- A** cubic centimeters       **B** cubic inches       **C** cubic feet

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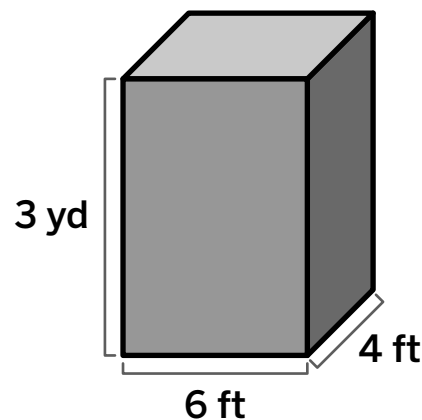
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# Additional Practice

1.08

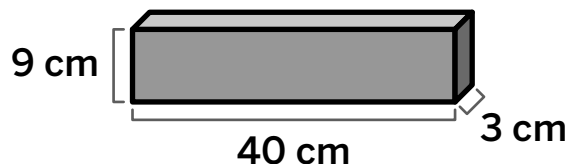
For Problems 1 and 2, determine the volume of the object.

- 1 A storage container has a base that measures 24 square feet and a height that is 3 yards from the floor. Determine the volume of the container in cubic feet.



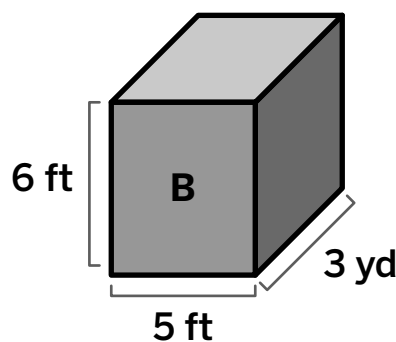
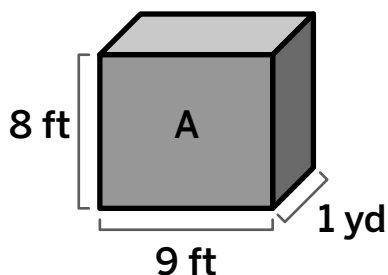
answer: \_\_\_\_\_

- 2 A box that measures 3 centimeters by 9 centimeters by 40 centimeters



answer: \_\_\_\_\_

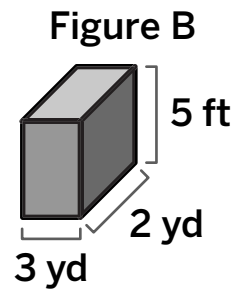
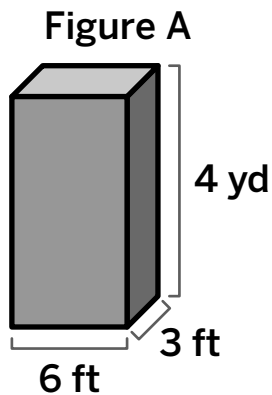
- 3 Two storage containers are being used to ship goods overseas. Which full container has the greater volume?



**i** Show or explain your thinking. \_\_\_\_\_

answer: \_\_\_\_\_

4 Which Figure has a *greater* volume?

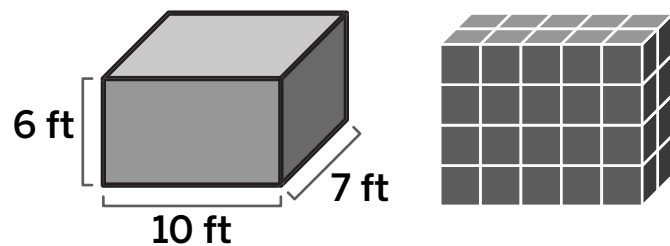


**i** Show or explain your thinking.

answer: \_\_\_\_\_

5 The family rented a small moving truck. The space inside the moving truck measures 10 feet long, 6 feet wide, and 7 feet tall. Each box has a volume of 10 cubic feet. Can 40 boxes fit into the moving truck?

**i** Show or explain your thinking.



answer: \_\_\_\_\_

# Additional Practice

1.09

- 1 Samantha divided her shape into 2 rectangular prisms.  
What is the volume of the left prism?

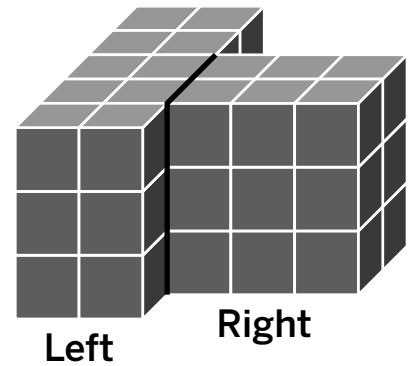
\_\_\_\_\_

What is the volume of the right prism?

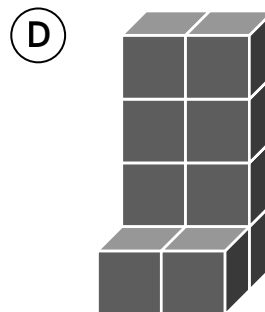
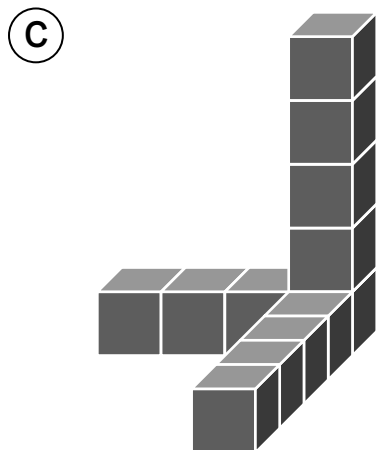
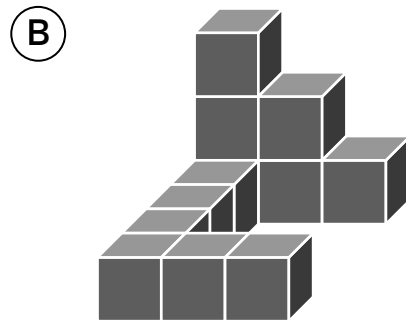
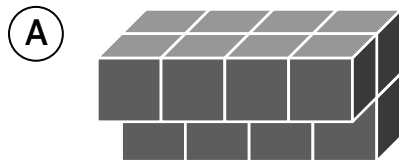
\_\_\_\_\_

What is the total volume?

\_\_\_\_\_



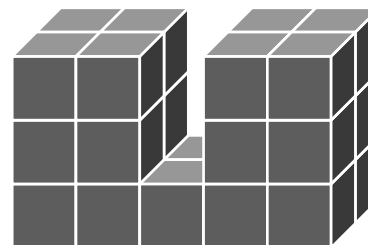
- 2 Which figures have the same volume? Select *all* that apply.



Name \_\_\_\_\_ Date \_\_\_\_\_

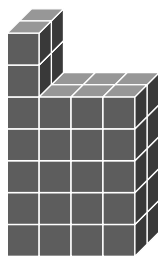
**3** Select the true statement about the figure.

- (A)** The figure can be built by making two  $2 \times 2 \times 2$  rectangular prism and one  $2 \times 5 \times 1$  rectangular prism.
- (B)** The figure can be built by making a  $2 \times 2 \times 1$  rectangular prism and two  $5 \times 1 \times 2$  rectangular prisms.
- (C)** The figure can be built by making a  $3 \times 2 \times 2$  rectangular prism and two  $2 \times 1 \times 1$  rectangular prisms.



**4** Determine the volume of the figure.

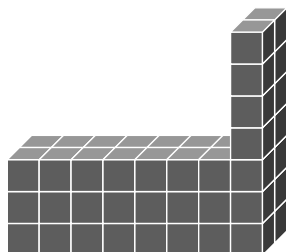
**i** Show or explain your thinking.



answer: \_\_\_\_\_

**5** Determine the volume of the figure.

**i** Show or explain your thinking.



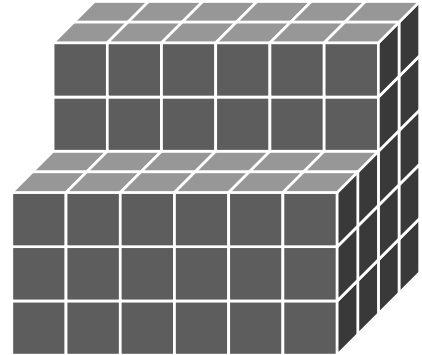
answer: \_\_\_\_\_

# Additional Practice

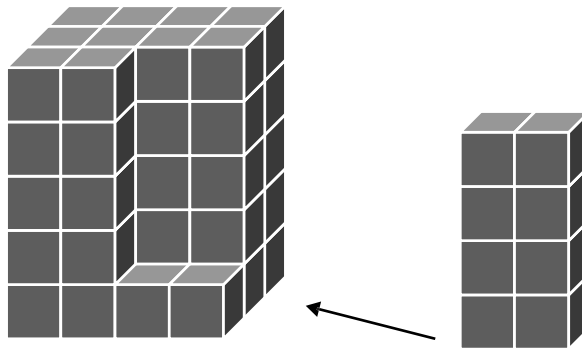
1.10

1 Determine the volume of the figure.

- (A) 72 cubic units
- (B) 96 cubic units
- (C) 108 cubic units
- (D) 114 cubic units



Use the images to answer questions 2–4.



2 What is the volume of the missing piece?

\_\_\_\_\_

3 What is the volume of the full prism?

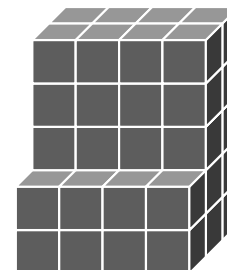
\_\_\_\_\_

4 What is the volume of the figure above?

\_\_\_\_\_

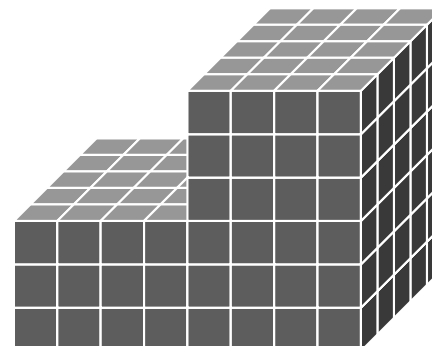
Name \_\_\_\_\_ Date \_\_\_\_\_

- 5 Clare says she can determine the volume of the figure by decomposing it into a rectangular prism with the dimensions  $4 \times 3 \times 2$  and another rectangular prism with the dimensions  $2 \times 3 \times 3$ . Do you agree with Clare?

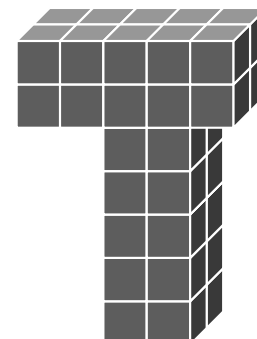


 Explain your thinking.

- 6 Determine the volume of the figure.



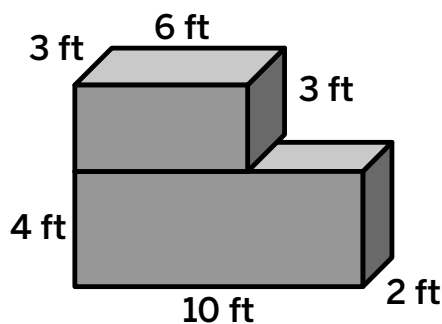
- 7 Determine the volume of the figure.



# Additional Practice

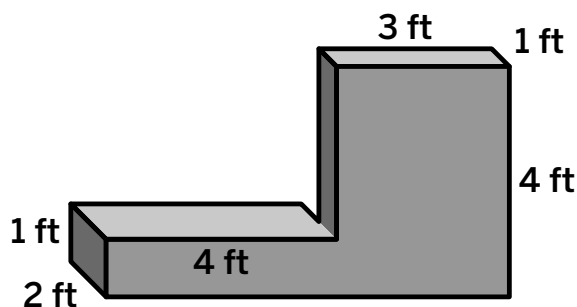
1.11

- 1 Select *all* the expressions that represent the volume of the figure.



- (A)  $(20 \times 4) + (9 \times 6)$
- (B)  $80 + 54$
- (C)  $(4 \times 10 \times 2) + (3 \times 6 \times 3)$
- (D)  $(10 \times 2 \times 4) + (3 \times 3 \times 6)$
- (E)  $(10 \times 6) + (6 \times 6)$

- 2 Select *all* the expressions that represent the volume of the figure.



- (A)  $(4 \times 2 \times 1) + (3 \times 1 \times 4)$
- (B)  $(8 \times 1) + (12 \times 1)$
- (C)  $(4 \times 2 \times 1) + (6 \times 1 \times 2)$
- (D)  $12 + 8$
- (E)  $(3 \times 1 \times 4) + (4 \times 2 \times 1)$

Name \_\_\_\_\_

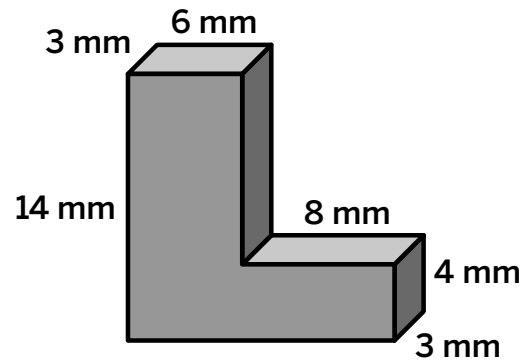
Date \_\_\_\_\_

**3** Write 3 expressions that represent the volume of the given figure.

1. \_\_\_\_\_

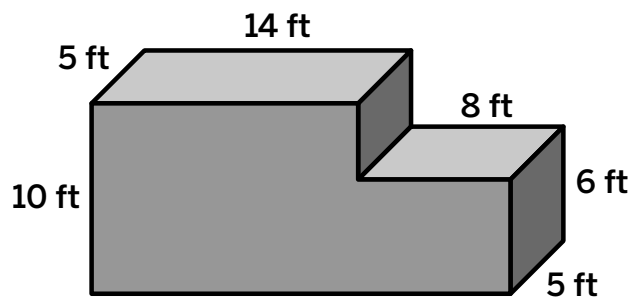
2. \_\_\_\_\_

3. \_\_\_\_\_

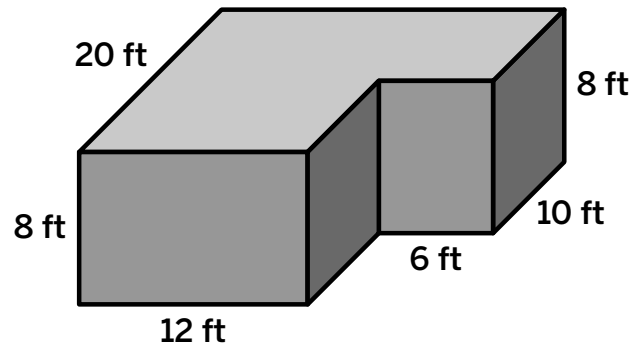


A construction company has 2 different warehouse designs — Warehouse A and Warehouse B. Use the 2 designs to answer Problems 4–5.

Warehouse A



Warehouse B



**4** Write an addition expression that could be used to determine the volume of Warehouse A.

\_\_\_\_\_

**5** Write a subtraction expression that could be used to determine the volume of Warehouse B.

\_\_\_\_\_

# Additional Practice

1.12

Diego decomposed this figure into two prisms to determine the volume. Use the figure for Problems 1–3.

1 Write an expression for the top prism.

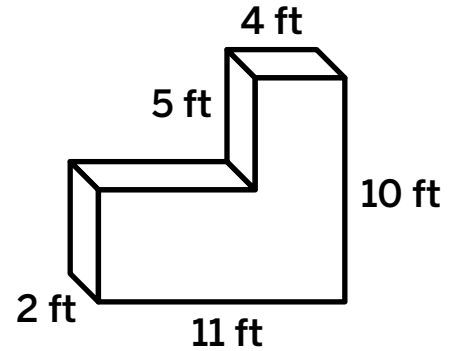
\_\_\_\_\_

2 Write an expression for the bottom prism.

\_\_\_\_\_

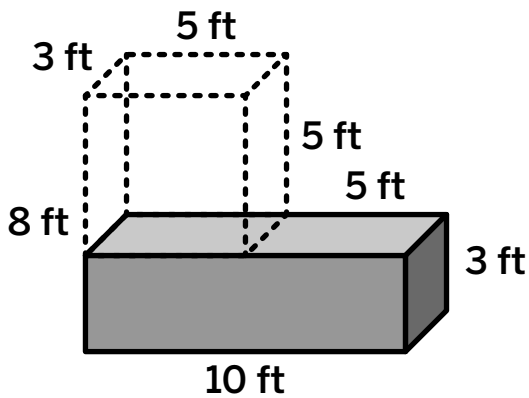
3 What is the volume of the entire figure?

\_\_\_\_\_



4 Determine the total volume of the figure.

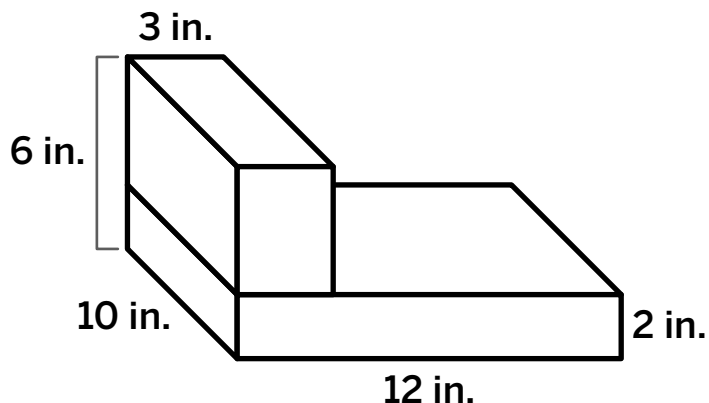
**i** Show or explain your thinking.



answer: \_\_\_\_\_

**5** Determine the total volume of the figure.

**i** Show or explain your thinking.

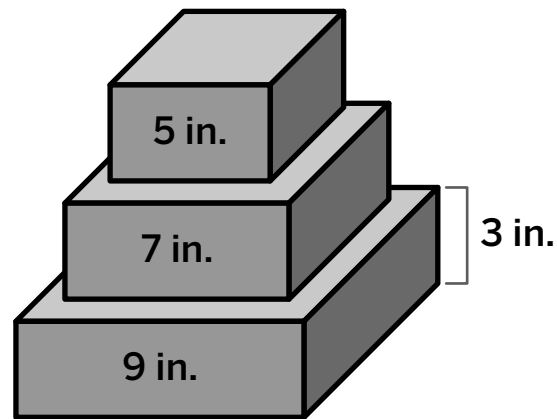


answer: \_\_\_\_\_

**6** Priya is constructing a model of a step pyramid, similar to ancient Mesoamerican pyramids. Each layer of the pyramid is in the shape of a square and has a height of 3 inches. Determine the volume of the pyramid.

What is the total volume of the pyramid?

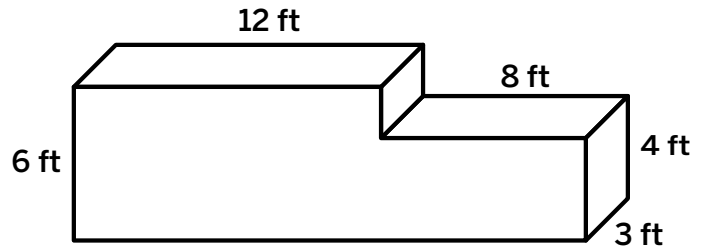
- (A) 315 cubic inches
- (B) 465 cubic inches
- (C) 540 cubic inches
- (D) 675 cubic inches



# Additional Practice

1.13

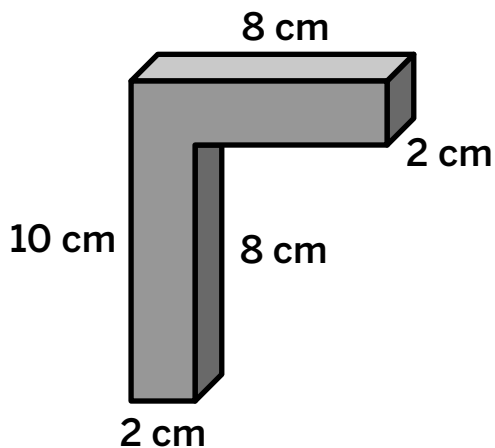
1 Which expressions represent the volume of the given figure? Select *all* that apply.



- (A)  $(8 \times 3 \times 4) + (12 \times 3 \times 6)$
- (B)  $(12 \times 3 \times 6) - (8 \times 3 \times 4)$
- (C)  $(12 \times 3 \times 2) + (20 \times 3 \times 4)$
- (D)  $(20 \times 3 \times 6) + (8 \times 3 \times 2)$
- (E)  $(24 \times 4) + (36 \times 6)$
- (F)  $(36 \times 4) + (36 \times 3)$

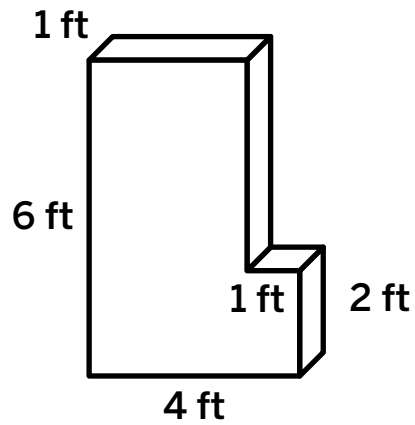
2 Write an expression that represents the volume of the figure.

**i** Show your thinking.



Name \_\_\_\_\_ Date \_\_\_\_\_

The figure is composed of rectangular prisms. Use the figure for Problems 3 and 4.



**i** Show your thinking.

**3** How does the expression  $(6 \times 3 \times 1) + (1 \times 2 \times 1)$  represent the volume of the figure?

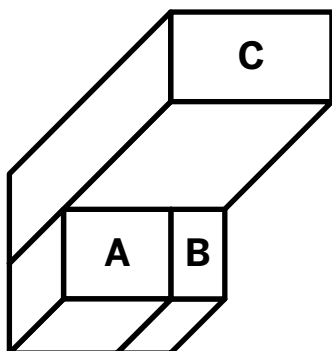
**4** Determine the volume of the figure.

answer: \_\_\_\_\_

## Additional Practice

1.14

- 1 Use the clues to determine the total volume of the figure in cubic inches.



**Clues:**

- Prism A has a length of 8 inches, a width of 6 inches, and a height of 5 inches.
- The base area of Prism B is 24 square inches.
- The height of all prisms is the same.
- The volume of Prism C is 3 times the combined volume of Prisms A and B.

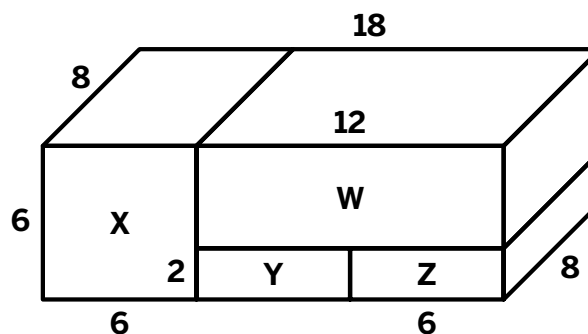
**i Show or explain your thinking.**

answer: \_\_\_\_\_

2 Which statements are true about the figure? Select *all* that apply.

**Statements:**

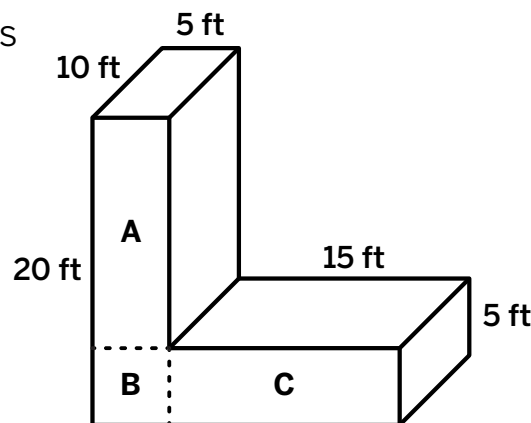
- (A) The height of Prism X is 3 times the height of Prism Y.
- (B) The width of Prism W is equal to the combined widths of Prisms X and Y.
- (C) The length of Prism Z is half the length of Prism W.
- (D) The total volume of the figure is equal to the sum of the volumes of Prisms W, X, Y, and Z.



**Use the figure for Problems 3 and 4**

3 Use the clues to determine the dimensions of Prism A, Prism B, and Prism C.

- Prisms A, B, and C have the same width.
- The height of Prism A is 3 times the height of Prism B.
- Prisms B and C have the same height.
- Prisms A and B have the same length.



**i Show or explain your thinking.**

4 Determine the volume of the figure.

**answer:** \_\_\_\_\_

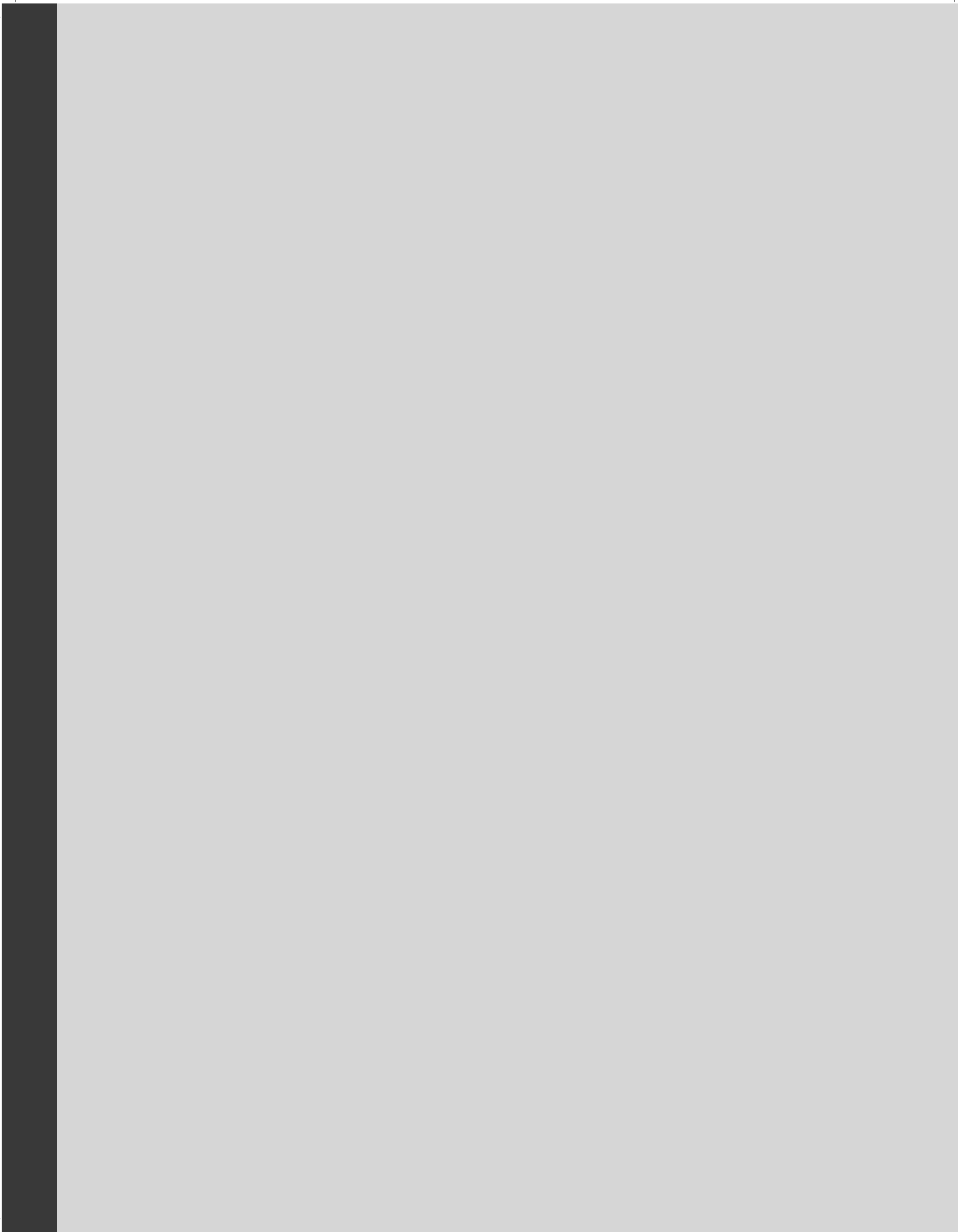
Grade 5

Unit 2

# Additional Practice

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## Practice Problems



**Additional Practice****2.02****For Problems 1–3, write a division expression that represents the situation.**

Situation	Division expression
<b>1</b> Some students are using paint to decorate posters. 9 students equally share 6 cans of paint. Determine how much paint each student receives.	_____
<b>2</b> Some students are sharing 10 breakfast bars. 4 students share the breakfast bars equally. Determine how many breakfast bars each student receives.	_____
<b>3</b> 7 students share 14 packs of markers to complete their art assignments. Determine how many packs of markers each student receives.	_____

**For Problems 4 and 5, use the story problem given.****Students are using construction paper to design paper airplane models.  
4 students shared 7 pieces of paper.****4** Select the expression that represents the story problem.

**(A)**  $3 \div 7$

**(B)**  $4 \div 7$

**(C)**  $7 \div 3$

**(D)**  $7 \div 4$

**5** How many pieces of construction paper does each student receive?

\_\_\_\_\_

Name \_\_\_\_\_ Date \_\_\_\_\_

**i Show your thinking.**

**6** 9 sandwiches are equally shared by 12 students.

Determine how many sandwiches each student receives. Then write a division expression to represent the story problem.

**answer:** \_\_\_\_\_

**expression:** \_\_\_\_\_

**7** 5 students equally share 7 pages of stickers for an art project.

Determine how many pages of stickers each student receives. Then write a division expression to represent the story problem.

**answer:** \_\_\_\_\_

**expression:** \_\_\_\_\_

**Additional Practice****2.03**

- 1** Priya has 15 yards of fabric that she cuts into 5 equal pieces. Which equation represents the length of each piece of fabric in yards?

(A)  $5 \div 15 = \frac{5}{15}$

(B)  $15 \div 5 = \frac{15}{5}$

(C)  $15 \div 5 = \frac{5}{15}$

(D)  $5 \div 15 = \frac{15}{5}$

- 2** Determine whether each equation represents the given story problem. Place a check mark in the correct column.

Situation	Equation	Yes	No
Clare has 12 muffins and wants to share them equally among 4 friends. How many muffins does each friend get?	$12 \div 4 = 3$		
Han bought 16 apples and put them into 8 bags. How many apples are in each bag?	$16 \div 8 = 2$		
Jada shared 5 granola bars equally among 2 siblings. How much granola did each sibling get?	$5 \div 2 = \frac{5}{2}$		
A pizza shop uses 9 cups of flour to make 3 pizzas. How much flour is used for each pizza?	$3 \div 9 = \frac{9}{3}$		

- 3** 9 apples are shared equally among 4 friends. Write an equation to represent the number of apples each friend will receive.

\_\_\_\_\_

- 4** Liam cuts a 15-inch ribbon into 6 equal parts. Write an equation to represent the length of each part in inches.

\_\_\_\_\_



# Additional Practice

2.04

For Problems 1–4, match the division equation with a situation it could represent.

### Equation

### Situation

**1**  $14 \div 6 = \frac{14}{6}$

\_\_\_\_\_ 3 pizzas were shared equally among 8 friends.

**2**  $6 \div 14 = \frac{6}{14}$

\_\_\_\_\_ An art teacher divided 8 liters of paint equally among 3 students.

**3**  $8 \div 3 = \frac{8}{3}$

\_\_\_\_\_ A volunteer cut 6 yards of ribbon into 14 equal pieces.

**4**  $3 \div 8 = \frac{3}{8}$

\_\_\_\_\_ A farmer wants to share 14 watermelons equally among 6 families.

**5** Write a situation that represents the expression  $5 \div 6 = \frac{5}{6}$ .

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**6** Write a situation that represents the equation  $2 \div 4 = \frac{2}{4}$ .

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Name \_\_\_\_\_ Date \_\_\_\_\_

- 7** A group of 4 friends are using yarn to make friendship bracelets. They share the yarn equally. Each friend gets  $\frac{7}{4}$  feet of yarn. How many feet of yarn did the friends share? Explain your thinking.

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- 8** A group of students decide to share pizza for lunch. They have 2 pizzas to share equally. Each student gets  $\frac{2}{3}$  of a pizza. How many students shared the pizza? Explain your thinking.

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## Additional Practice

2.05

Diego made 8 cups of chili for dinner. The chili will be shared equally among 5 people in his family. Use this information for Problems 1–3.

1 Write a division expression to represent the problem.

\_\_\_\_\_

2 What does 8 represent? Select *all* that apply.

- (A) numerator
- (B) denominator
- (C) divisor
- (D) dividend
- (E) amount being shared
- (F) number of equal shares

3 How much chili will each family member get?

- (A) 1 cup       (B) more than 1 cup       (C) less than 1 cup

4 Determine whether the equation  $12 \div b = \frac{b}{12}$  is *true* or *false*.

Explain your thinking.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Name \_\_\_\_\_ Date \_\_\_\_\_

- 5** For each situation given, write a division equation and determine if the value is equal to, more than, or less than 1.

Situation	Division Equation	Less than 1	Equal to 1	More than 1
5 friends share 7 pizzas equally.				
6 students share 8 sheets of paper				
9 players share 9 water bottles.				
10 kids share 5 bags of popcorn.				

- 6** The total weight of a shipment of apples is 150 kilograms. The shipment is divided into 5 equal crates.

Write a division equation to represent the situation.

\_\_\_\_\_

**Additional Practice****2.06**

- 1** Clare and her two friends ran a 2-mile relay race as a team. They each ran the same distance. Represent the situation with a multiplication equation and a division equation.

Write a multiplication equation to represent the situation.

**multiplication equation:** \_\_\_\_\_

Write a division equation to represent the situation.

**division equation:** \_\_\_\_\_

- 2** 3 friends shared 9 apples equally. Han says the equation  $9 \div 3 = \frac{9}{3}$  represents the situation. What is another equation that represents the situation?

**(A)**  $\frac{1}{9} \times 3 = \frac{3}{9}$

**(B)**  $3 \div 9 = \frac{3}{9}$

**(C)**  $9 \times 3 = 279$

**(D)**  $\frac{9}{3} = \frac{1}{3} \times 9$

- 3** 6 sandwiches are shared equally by 8 people. Which equations represent the situation? Select *all* that apply.

**(A)**  $\frac{6}{8} \times 8 = \frac{6}{8}$

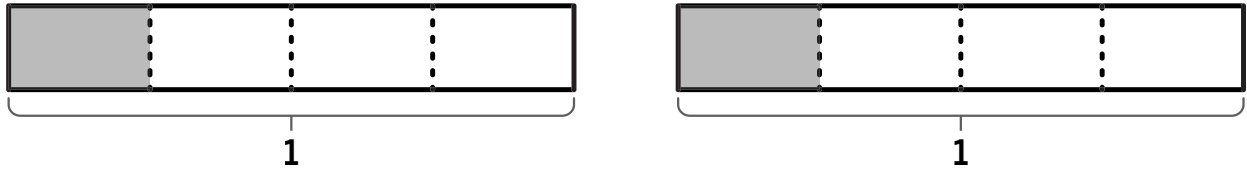
**(B)**  $6 \times \frac{1}{8} = \frac{6}{8}$

**(C)**  $6 \div 8 = \frac{6}{8}$

**(D)**  $8 \div 6 = \frac{8}{6}$

Name \_\_\_\_\_ Date \_\_\_\_\_

- 4 Write a situation that the diagram could represent. Then, write a multiplication equation and a division equation to represent the situation.



situation: \_\_\_\_\_

multiplication equation: \_\_\_\_\_

division equation: \_\_\_\_\_

- 5 9 bananas are shared equally by 5 children. Represent the situation with a multiplication equation and a division equation.

multiplication equation: \_\_\_\_\_

division equation: \_\_\_\_\_

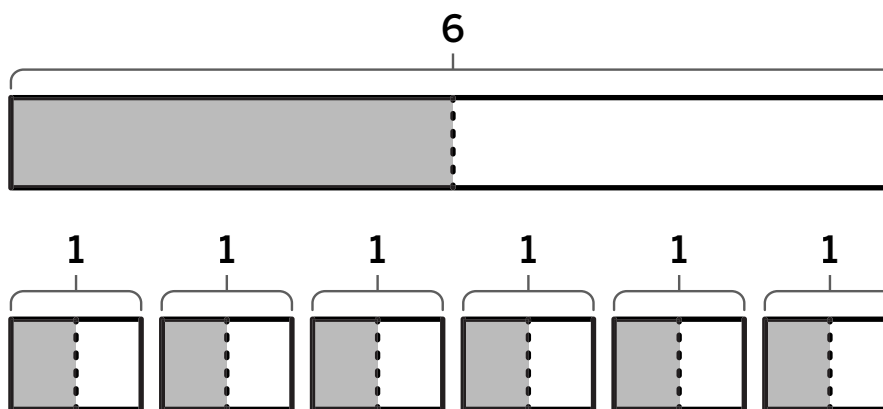
- 6 Priya used  $\frac{1}{4}$  of a 12-liter water tank to water her plants. Represent the situation with a multiplication equation and a division equation.

multiplication equation: \_\_\_\_\_

division equation: \_\_\_\_\_

# Additional Practice

2.07



1 Select *all* the expressions that represent the two diagrams given.

- (A)  $2 \times \frac{1}{6}$
- (B)  $6 \div 2$
- (C)  $\frac{1}{2} \times 6$
- (D)  $2 \div 6$
- (E)  $\frac{6}{2}$

2 Explain how the expressions  $3 \div 4$  and  $\frac{1}{4} \times 3$  represent the diagram.




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Name \_\_\_\_\_ Date \_\_\_\_\_

**For Problems 3–5, determine whether the equation is *true* or *false*.**

**3**  $8 \div 4 = 4 \times \frac{1}{8}$  \_\_\_\_\_

**4**  $5 \times \frac{1}{10} = 5 \div 10$  \_\_\_\_\_

**5**  $7 \div 2 = 2 \times \frac{1}{7}$  \_\_\_\_\_

**6** Write a multiplication equation that is equivalent to  $6 \div 9 = \frac{6}{9}$ .

\_\_\_\_\_

**7** Write a division equation that is equivalent to  $8 \times \frac{1}{5} = \frac{8}{5}$ .

\_\_\_\_\_

**8** Write a multiplication equation that is equivalent to  $4 \div 7 = \frac{4}{7}$ .

\_\_\_\_\_

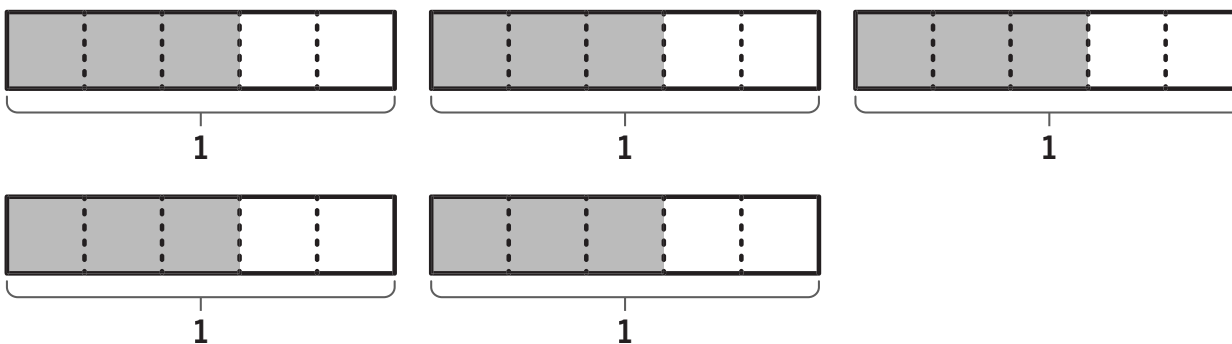
**9** Write a division equation that is equivalent to  $9 \times \frac{1}{2} = \frac{9}{2}$ .

\_\_\_\_\_

# Additional Practice

2.08

1 Select the equation that represents the diagram.



(A)  $5 \times 5 = 25$

(B)  $5 \times \frac{2}{5} = \frac{10}{5}$

(C)  $5 \times \frac{3}{5} = \frac{15}{5}$

(D)  $5 \times \frac{1}{5} = \frac{5}{5}$

2 Match each expression with the correct solution.

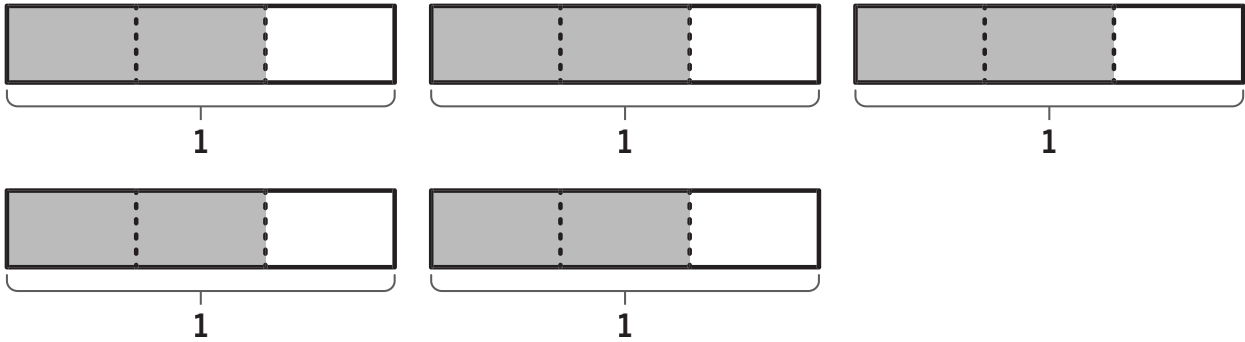
Expression	Solution
a. $5 \times \frac{3}{4}$	_____ 2
b. $6 \times \frac{2}{5}$	_____ $\frac{15}{4}$
c. $3 \times \frac{4}{6}$	_____ $\frac{12}{5}$

3 Clare cuts a ribbon into 8 equal parts. Each part is  $\frac{9}{8}$  inches long. Write an equation to represent the length of the original ribbon in inches.

\_\_\_\_\_

Name \_\_\_\_\_ Date \_\_\_\_\_

**4** Select *all* the expressions that represent the diagram.



**(A)**  $5 \div 2$

**(B)**  $\frac{2}{3} \times 5$

**(C)**  $5 \times 3 \times \frac{2}{3}$

**(D)**  $5 \times 3 \times \frac{1}{3}$

**(E)**  $\frac{10}{3}$

**5** For each equation in the table, determine the missing value.

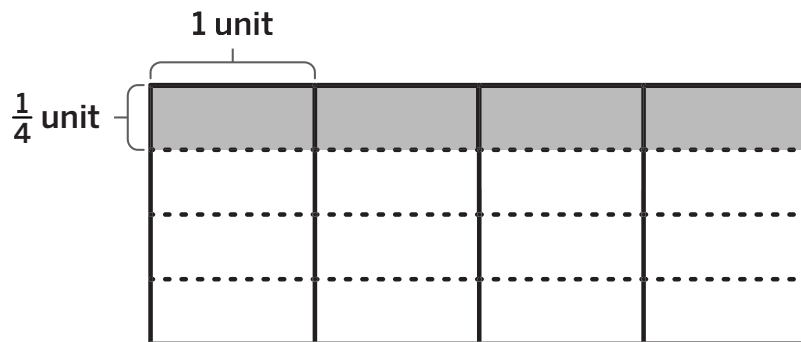
Equation	?
$7 \times \frac{3}{4} = 7 \times ? \times \frac{1}{4}$	_____
$5 \times \frac{2}{3} = 5 \times 2 \times \frac{?}{3}$	_____
$4 \times \frac{5}{7} = ? \times 5 \times \frac{1}{7}$	_____
$6 \times \frac{3}{5} = 6 \times 3 \times \frac{1}{?}$	_____

# Additional Practice

2.09

- 1 Write an expression to represent the area of the shaded rectangular region. Then determine the area of the shaded rectangular region in square units.

 Show or explain your thinking.

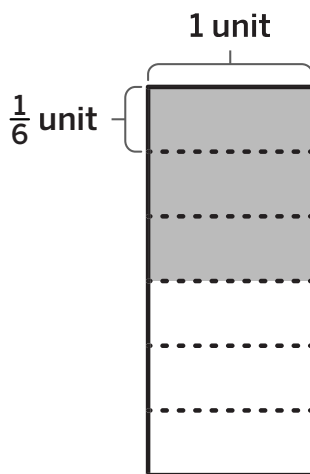


expression: \_\_\_\_\_

area: \_\_\_\_\_

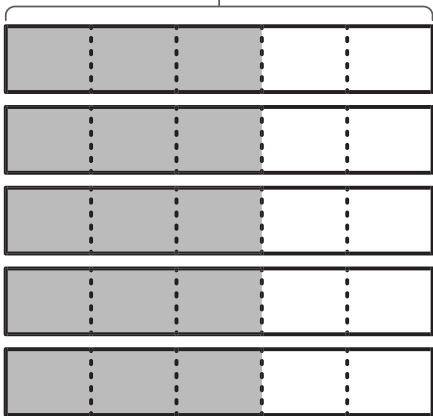
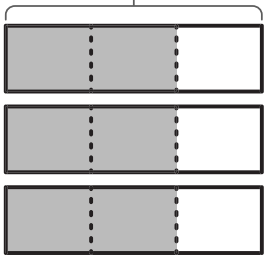
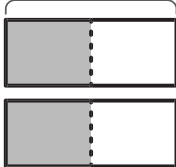
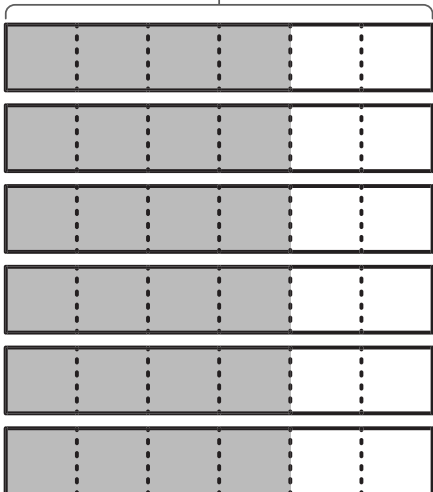
- 2 Determine the area of the shaded rectangular region in square units.

 Show or explain your thinking.



area: \_\_\_\_\_

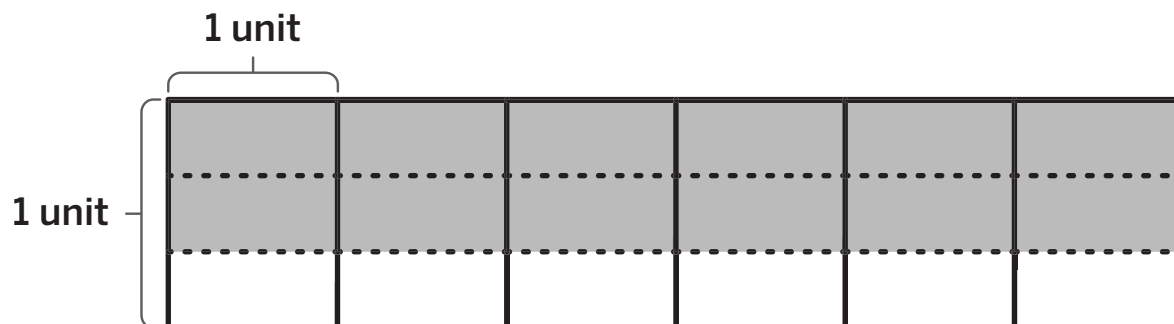
**3** Match each diagram with the expression that represents the area of the shaded rectangular region.

Diagram	Expression
<p><b>a.</b></p> <p style="text-align: center;">1 unit</p> 	<p>_____ <math>6 \times \frac{4}{6}</math></p>
<p><b>b.</b></p> <p style="text-align: center;">1 unit</p> 	<p>_____ <math>2 \times \frac{1}{2}</math></p>
<p><b>c.</b></p> <p style="text-align: center;">1 unit</p> 	<p>_____ <math>3 \times \frac{2}{3}</math></p>
<p><b>d.</b></p> <p style="text-align: center;">1 unit</p> 	<p>_____ <math>5 \times \frac{3}{5}</math></p>

# Additional Practice

2.10

Use the diagram for Problems 1 and 2.



1 Select *all* the multiplication expressions that represent the area of the shaded region.

(A)  $6 \times \frac{2}{3}$

(B)  $\frac{2}{3} \times 6$

(C)  $6 \times \frac{3}{2}$

(D)  $\frac{1}{3} \times 6$

2 Determine the area of the shaded region in square units.

answer: \_\_\_\_\_ square units.

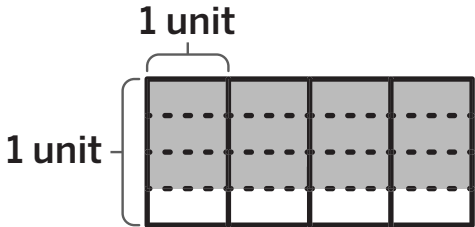
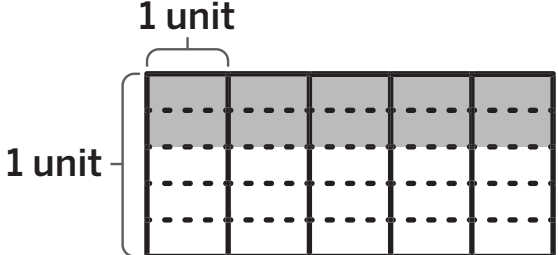
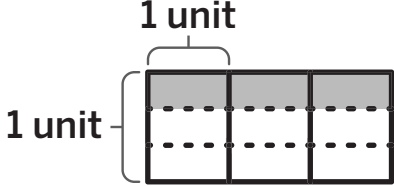
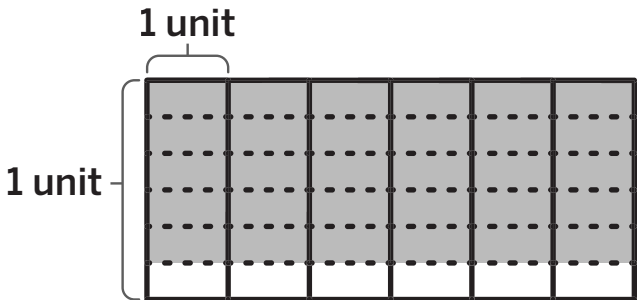
3 A rectangle has side lengths of 5 inches and  $\frac{3}{5}$  inches. Write an expression that represents the area of the rectangle. Then determine the area in square inches.

expression: \_\_\_\_\_

area: \_\_\_\_\_ square inches.

Name \_\_\_\_\_ Date \_\_\_\_\_

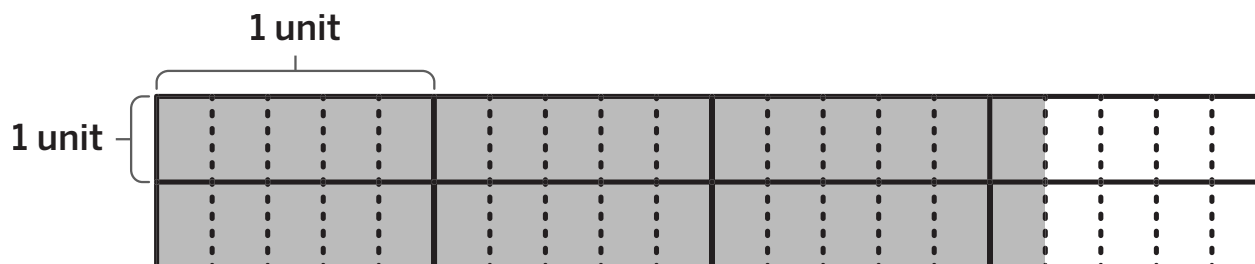
For Problems 4–7, write an expression to represent the area of the shaded rectangular region in the diagram. Then determine the area of the shaded rectangular region in square units.

Diagram	Expression	Area (square units)
<p><b>4</b></p> 		
<p><b>5</b></p> 		
<p><b>6</b></p> 		
<p><b>7</b></p> 		

# Additional Practice

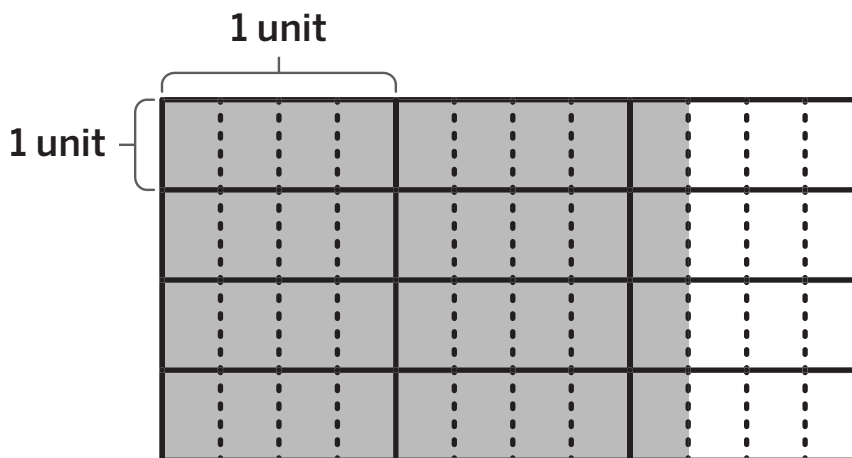
2.11

- 1 Choose the expression that represents the area of the shaded rectangular region.



- (A)  $3 \times 5\frac{2}{3}$
- (B)  $2 \times 3\frac{1}{5}$
- (C)  $3 \times 2\frac{2}{5}$
- (D)  $5 \times 2\frac{1}{3}$

Use the diagram for Problems 2 and 3.



- 2 Write a multiplication expression that represents the area of the shaded rectangular region.

\_\_\_\_\_

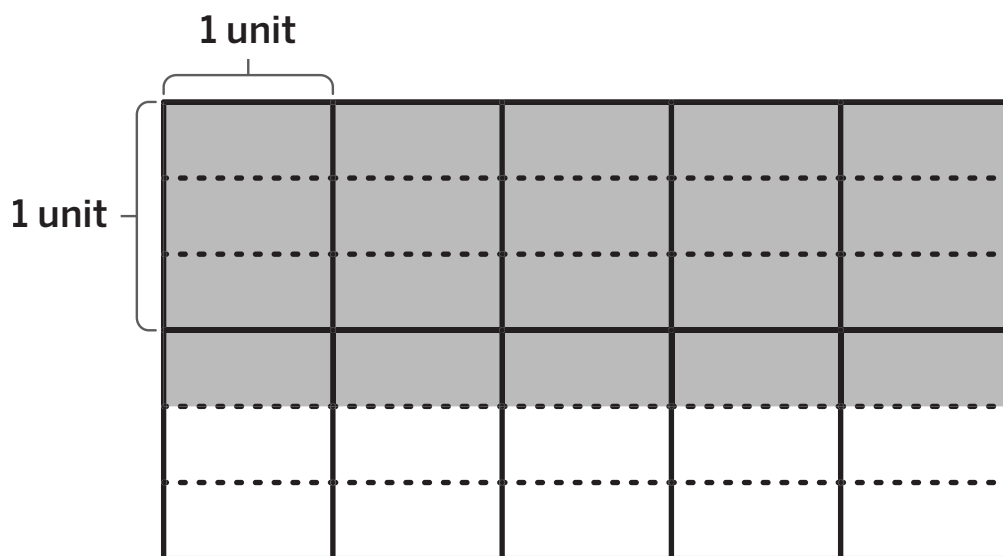
Name \_\_\_\_\_ Date \_\_\_\_\_

**3** Determine the area of the shaded rectangular region in square units.

**i** Show or explain your thinking.

answer: \_\_\_\_\_

Use the diagram for Problem 4.



**4** Which expressions represent the area of the shaded rectangular region? Select *all* that apply.

**(A)**  $6 \times 4\frac{1}{3}$

**(B)**  $24 \times \frac{1}{3}$

**(C)**  $5 \times \frac{4}{3}$

**(D)**  $6 \times \frac{4}{3}$

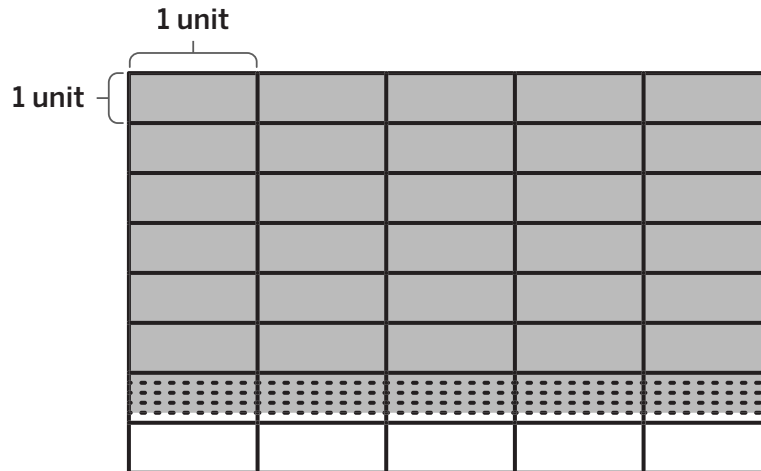
**(E)**  $5 + \frac{4}{3}$

**(F)**  $6 + \frac{2}{3}$

# Additional Practice

2.12

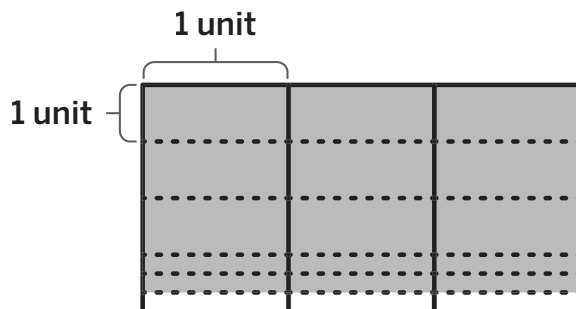
- 1 Which expressions represent the area of the shaded rectangular region? Select *all* that apply.



- (A)  $5 \times 8\frac{3}{5}$
- (B)  $5 \times 6\frac{4}{5}$
- (C)  $5 \times \frac{34}{5}$
- (D)  $\frac{30}{5} \times 8$

- 2 Determine the area of the shaded rectangular region in square units.

**i** Show your thinking.

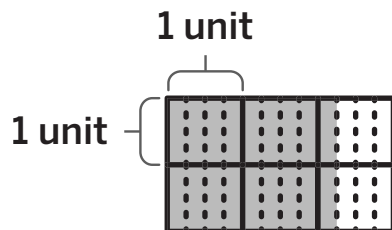


answer: \_\_\_\_\_

Name \_\_\_\_\_ Date \_\_\_\_\_

**Use the diagram and chart for Problems 3 and 4.**

Han and Priya found the area of the figure shown using two different methods.



	Han	Priya
<b>Step 1:</b>	$2 \times 2 = 4$	$2 \times 3 = 6$
<b>Step 2:</b>	$2 \times \frac{1}{4} = \frac{2}{4}$	$2 \times \frac{1}{4} = \frac{2}{4}$
<b>Step 3:</b>	$4 + \frac{2}{4} = 4\frac{2}{4}$	$6 - \frac{2}{4} = 5\frac{2}{4}$
<b>Solution:</b>	$4\frac{1}{2}$	$5\frac{1}{2}$

**3** If the correct answer is  $4\frac{1}{2}$ , which step did Priya do incorrectly?

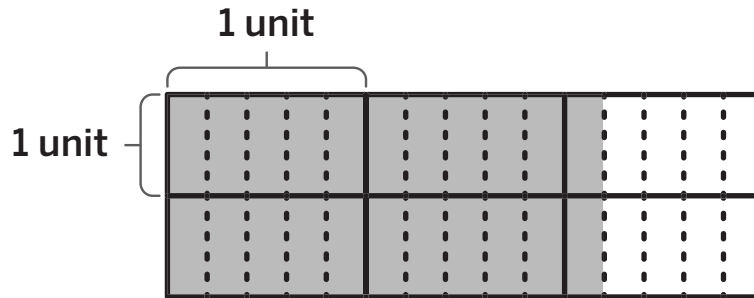
- (A) Step 1
- (B) Step 2
- (C) Step 3
- (D) Solution

**4** Write the correct equation for Priya.

# Additional Practice

2.13

Use the diagram for Problems 1 and 2.



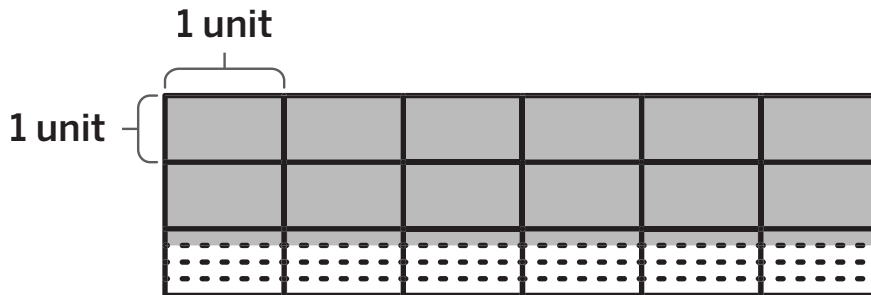
- 1 Write an expression that represents the area of the shaded region.

expression: \_\_\_\_\_

- 2 What is the area of the shaded region, in square units?

\_\_\_\_\_

- 3 Write 2 different expressions that could be used to determine the area of the shaded rectangular region.

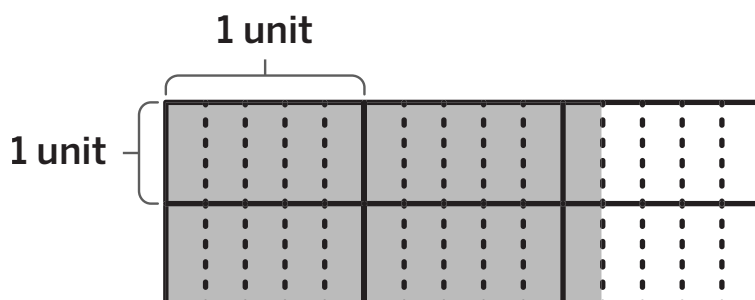


expression 1: \_\_\_\_\_

expression 2: \_\_\_\_\_

Name \_\_\_\_\_ Date \_\_\_\_\_

Use the diagram for Problems 4 and 5.



- 4 Place an X in the correct column to indicate if the expression given can be used to determine the area of the shaded rectangular region.

	True	False
$3 + 5\frac{3}{5}$		
$2 \times 2\frac{3}{5}$		
$(3 \times 5) + \frac{1}{5}$		
$(2 \times 3) - (2 \times \frac{1}{5})$		
$(2 \times 2) + (2 \times \frac{1}{5})$		

- 5 What is the area of the shaded region, in square units?

\_\_\_\_\_

**Additional Practice****2.14****1** Select *all* the values of  $5 \times 1\frac{3}{10}$ .

**(A)**  $6\frac{1}{2}$

**(B)**  $1\frac{5}{10}$

**(C)**  $\frac{13}{2}$

**(D)**  $\frac{65}{10}$

**(E)**  $5\frac{3}{10}$

**2** Match each expression with the correct product.

Expression	product
a. $3 \times 4\frac{2}{5}$	_____ 15
b. $5 \times 3\frac{1}{2}$	_____ $\frac{28}{3}$
c. $2\frac{1}{3} \times 4$	_____ $17\frac{1}{2}$
d. $6 \times \frac{5}{2}$	_____ $\frac{66}{5}$

Name \_\_\_\_\_ Date \_\_\_\_\_

**3** Determine whether the equation  $4 \times 2\frac{3}{5} = \frac{23}{5}$  is *true* or *false*.

**i** Show or explain your thinking.

answer: \_\_\_\_\_

For Problems 4–6, evaluate the expression.

**i** Show your thinking.

**4**  $5 \times \frac{4}{5}$

answer: \_\_\_\_\_

**5**  $3 \times \frac{4}{7}$

answer: \_\_\_\_\_

**6**  $6 \times 2\frac{1}{3}$

answer: \_\_\_\_\_

**Additional Practice****2.15****For Problem 1 use the situation given.**

- 1** Diego's horse needs about  $5\frac{3}{8}$  kilograms of hay each day. About how much hay will his horse need in 1 week? Explain your thinking.

- 2** Match each expression with a reasonable estimate.

Expression	Estimate
a. $8 \times 2\frac{7}{8}$	_____ 15
b. $5 \times 3\frac{2}{9}$	_____ 28
c. $9\frac{1}{4} \times 2$	_____ 24
d. $4 \times 6\frac{8}{9}$	_____ 18

- 3** Clare says that  $7\frac{5}{8} \times 4$  is close to, but a little less than, 32. Do you agree with Clare? Explain your thinking.

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Name \_\_\_\_\_ Date \_\_\_\_\_

- 4 Han says the product of each expression in the table is about 50. For each expression, determine whether his estimate is reasonable and explain your thinking.

Expression	Reasonable? (yes or no)	Explanation
$12 \times 4\frac{1}{5}$	_____	$4\frac{1}{5}$ is approximately equal to 4. $12 \times 4 = 48$ , so the estimate is close to 50.
$7 \times 5\frac{2}{3}$	_____	$5\frac{2}{3}$ is approximately equal to 6. $7 \times 6 = 42$ , so the estimate is significantly lower than 50.
$9 \times 5\frac{5}{8}$	_____	$5\frac{5}{8}$ is approximately equal to 6. $9 \times 6 = 54$ , so the estimate is reasonably close to 50.

- 5 Priya is planning to build a new patio. Her patio will be between 20 and 30 square feet. Choose *all* the side lengths that are reasonable for her patio.

- (A) 8 feet by  $3\frac{1}{4}$  feet
- (B) 7 feet by  $5\frac{3}{8}$  feet
- (C) 10 feet by  $6\frac{1}{2}$  feet
- (D) 8 feet by  $2\frac{3}{5}$  feet

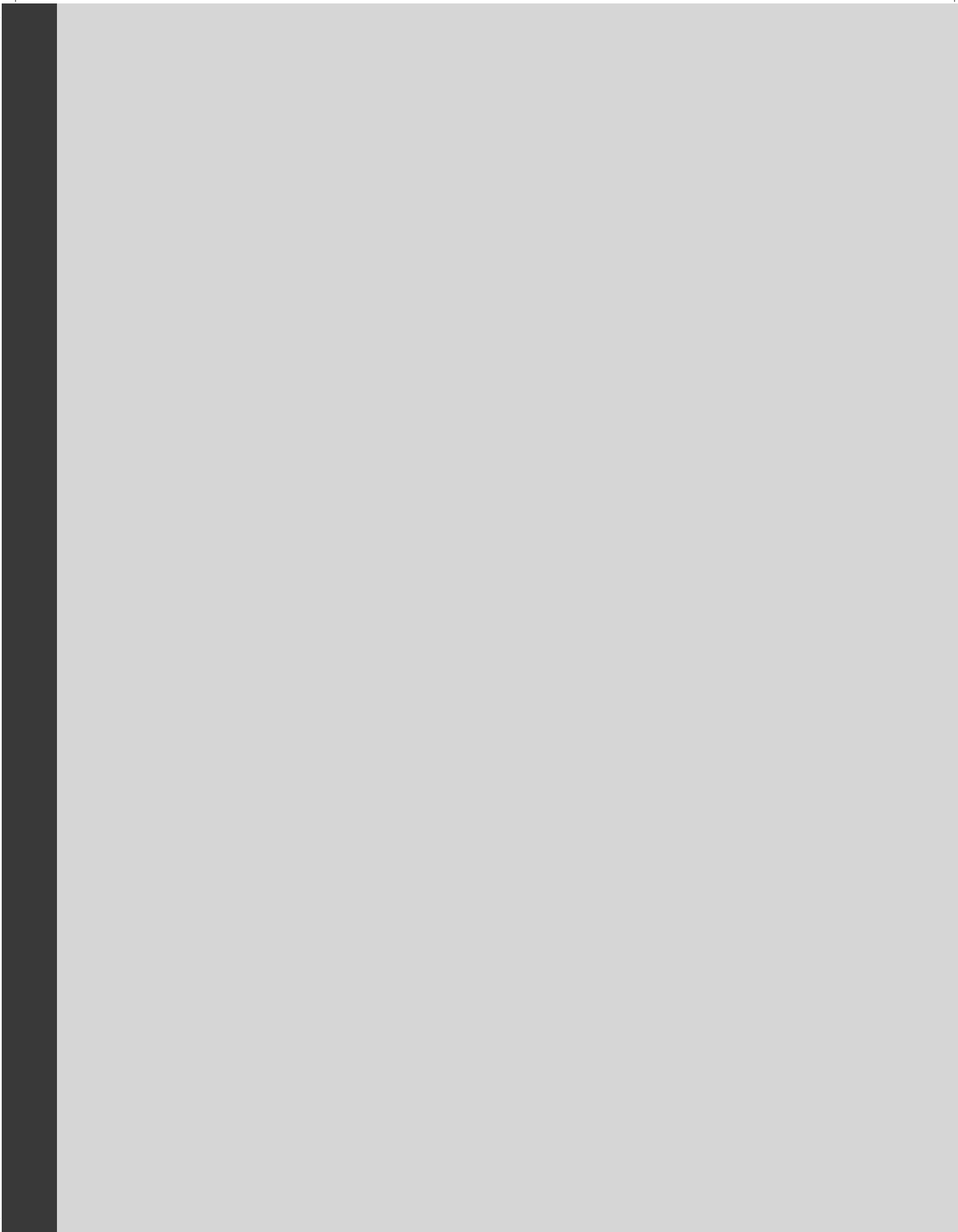
Grade 5

Unit 3

# Additional Practice

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## Practice Problems

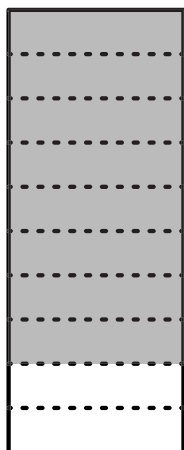


# Additional Practice

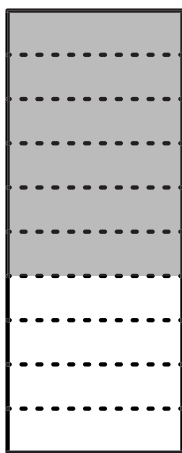
3.02

1 Which diagram represents  $\frac{1}{4}$  of  $\frac{8}{10}$ ?

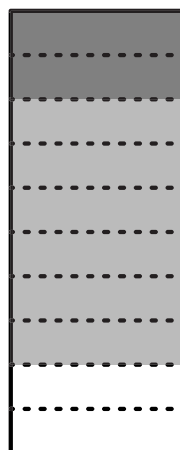
(A)



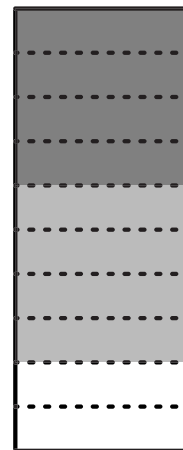
(B)



(C)



(D)



Use the diagram for Problem 2.



2 Select the true statement.

- (A) Clare had  $\frac{6}{8}$  of a jar of paint. She used  $\frac{1}{2}$  of the paint. Clare used  $\frac{3}{8}$  of the whole jar.
- (B) Clare had  $\frac{6}{8}$  of a jar of paint. She used  $\frac{1}{2}$  of the paint. Clare used  $\frac{6}{16}$  of the whole jar.
- (C) Clare had  $\frac{6}{8}$  of a jar of paint. She used  $\frac{1}{2}$  of the paint. Clare used  $\frac{4}{8}$  of the whole jar.
- (D) Clare had  $\frac{6}{8}$  of a jar of paint. She used  $\frac{1}{2}$  of the paint. Clare used  $\frac{5}{8}$  of the whole jar.

Name \_\_\_\_\_ Date \_\_\_\_\_

- 3** Diego had  $\frac{6}{8}$  of his sandwich left. He ate  $\frac{2}{6}$  of the remaining sandwich. How much of the whole sandwich did Diego eat? Draw a diagram to represent the problem. Then solve the problem.

 Draw

answer: \_\_\_\_\_

- 4** Han used the diagram to determine that  $\frac{2}{3}$  of  $\frac{3}{6}$  is  $\frac{1}{3}$ . Is he correct?

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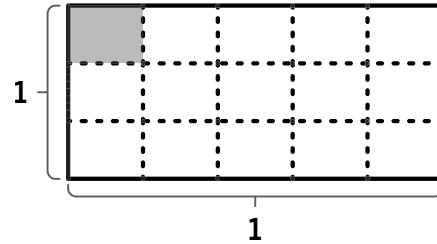
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# Additional Practice

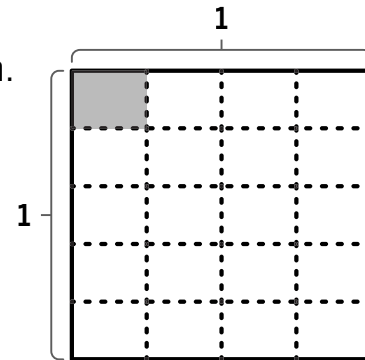
3.03

- 1** Select the expression that represents the area of the shaded rectangular region in the diagram.

- (A)  $\frac{1}{6} \times \frac{1}{5}$
- (B)  $\frac{1}{3} \times \frac{1}{5}$
- (C)  $\frac{1}{3} \times \frac{1}{6}$
- (D)  $\frac{1}{5} \times \frac{1}{5}$



- 2** Write an equation to represent the area of the shaded rectangular region in the diagram.



- 3** Which expressions have a value of  $\frac{1}{30}$ ? Select *all* that apply.

- (A)  $\frac{1}{2} \times \frac{1}{15}$
- (B)  $\frac{1}{6} \times \frac{1}{5}$
- (C)  $\frac{1}{5} \times \frac{1}{6}$
- (D)  $\frac{1}{30} \times \frac{1}{10}$

Name \_\_\_\_\_ Date \_\_\_\_\_

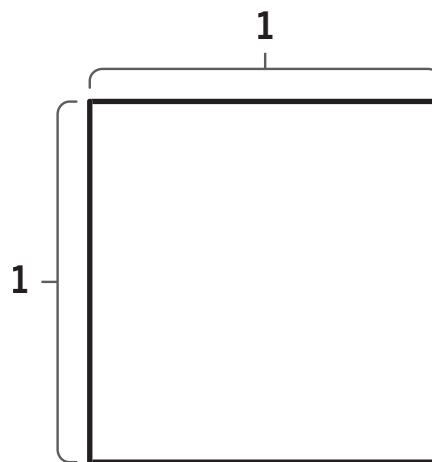
**For Problems 4 and 5, determine the product of the expression.  
Draw a diagram if it helps.**

**4**  $\frac{2}{5} \times \frac{1}{4} =$  \_\_\_\_\_

**5**  $\frac{3}{7} \times \frac{2}{3} =$  \_\_\_\_\_

**6** Represent the expression  $\frac{1}{3} \times \frac{1}{4}$  on the diagram. Then determine the product.

**Show your thinking.**



answer: \_\_\_\_\_

**7** Diego has  $\frac{1}{2}$  of an apple pie. He eats  $\frac{1}{3}$  of it. Write an equation to represent how much of the whole pie Diego ate.

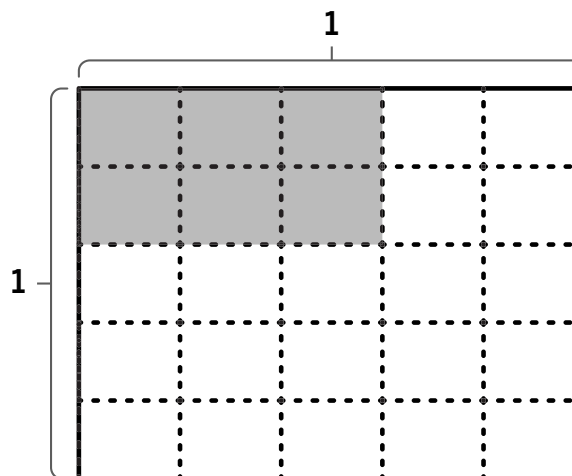
\_\_\_\_\_

# Additional Practice

3.04

1 Which expression represents the area of the shaded rectangular region in the diagram?

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



Use the situation for Problems 2 and 3.

Priya is making  $\frac{1}{4}$  of a batch of cookies. The full recipe calls for  $1\frac{1}{2}$  cups of sugar.

**i** Show your thinking.

2 How much sugar does Priya need? Draw a diagram to show your thinking.



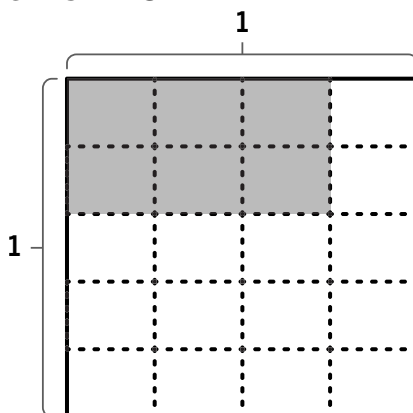
answer: \_\_\_\_\_

3 Write an equation to represent how much sugar Priya needs.

\_\_\_\_\_

Name \_\_\_\_\_ Date \_\_\_\_\_

**Use the diagram for Problems 4–5**



- 4** Write an equation to represent the area of the shaded rectangular region in the diagram.

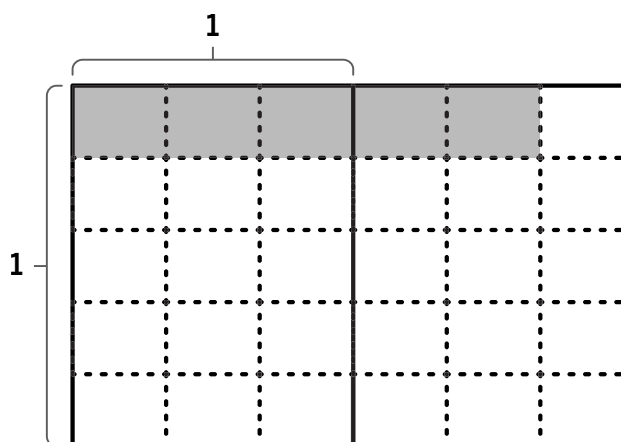
\_\_\_\_\_

- 5** Explain how your equation in Problem 4 represents the area of the shaded region.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

- 6** Write an equation to represent the area of the shaded rectangular region in the diagram.

\_\_\_\_\_

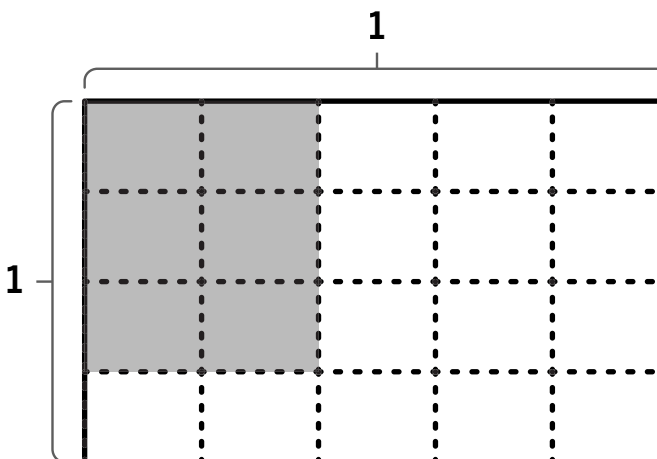


# Additional Practice

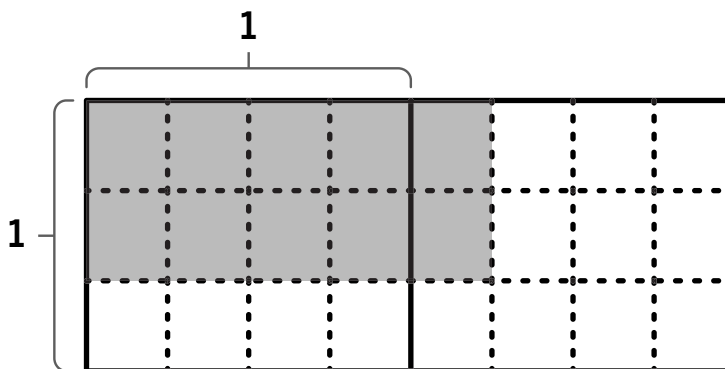
3.05

1 Which equation represents the area of the shaded rectangular region in the diagram?

- (A)  $\frac{2}{5} \times \frac{3}{4} = \frac{6}{20}$
- (B)  $\frac{2}{4} \times \frac{3}{5} = \frac{6}{20}$
- (C)  $\frac{4}{5} \times \frac{3}{4} = \frac{12}{20}$
- (D)  $\frac{2}{3} \times \frac{5}{4} = \frac{10}{12}$



2 Write an equation to represent the area of the shaded rectangular region in the diagram.



equation: \_\_\_\_\_

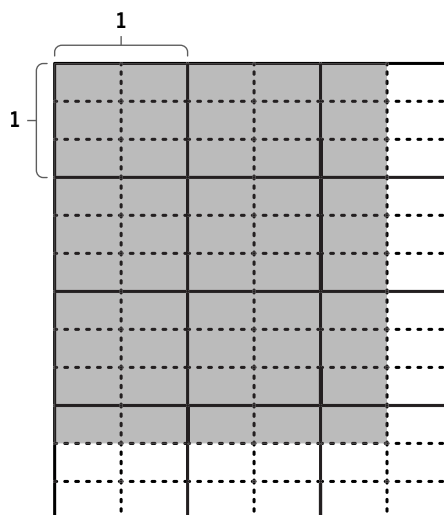
3 Which expressions have a value of 1? Select *all* that apply.

- (A)  $\frac{8}{6} \times \frac{6}{4}$
- (B)  $\frac{3}{9} \times \frac{12}{4}$
- (C)  $\frac{6}{8} \times \frac{9}{6}$
- (D)  $\frac{12}{6} \times \frac{3}{6}$

Name \_\_\_\_\_

Date \_\_\_\_\_

- 4 Write an equation to represent the area of the shaded rectangular region in the diagram.



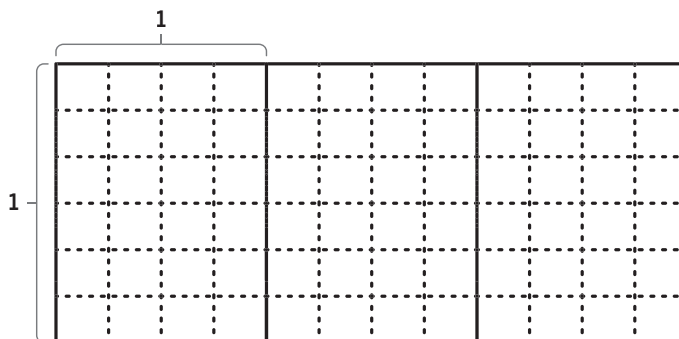
equation: \_\_\_\_\_

Use the information for Problems 5–6.

The cover of Priya's book of drawings measures  $2\frac{1}{4}$  feet by  $\frac{5}{6}$  feet.

- 5 Determine the area of the book cover in square feet.

**i** Show or explain your thinking.



answer: \_\_\_\_\_

- 6 Write an equation to represent the area of Priya's book cover.

\_\_\_\_\_

# Additional Practice

3.06

- 1** Which expressions represent the area of the shaded rectangular region in the diagram?  
Select *all* that apply.

(A)  $\frac{1}{2} \times \frac{3}{4}$

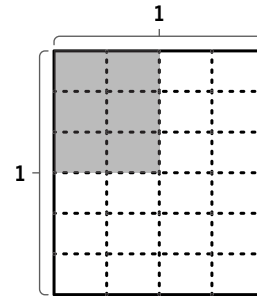
(B)  $\frac{3}{6} \times \frac{2}{4}$

(C)  $\frac{1}{2} \times \frac{1}{2}$

(D)  $\frac{4}{6} \times \frac{2}{4}$

(E)  $\frac{3}{6} \times \frac{4}{4}$

(F)  $\frac{4}{4} \times \frac{2}{6}$

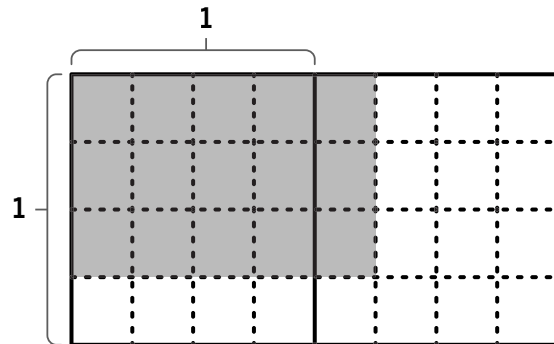


Use the diagram for Problem 2.

Priya and Diego wrote equations for the diagram given.

Priya wrote the equation  $\frac{3}{4} \times \frac{5}{8} = \frac{15}{32}$

Diego wrote the equation  $\frac{3}{4} \times \frac{5}{4} = \frac{15}{16}$

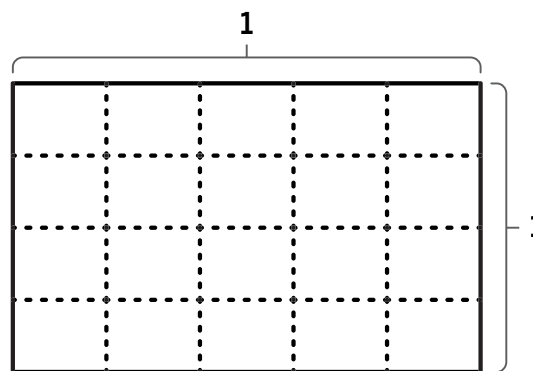


- 2** Whose equation represents the diagram?

**i** Show or explain your thinking.

Name \_\_\_\_\_ Date \_\_\_\_\_

- 3** Represent the expression  $\frac{3}{4} \times \frac{4}{5}$  on the diagram. Then determine the product.

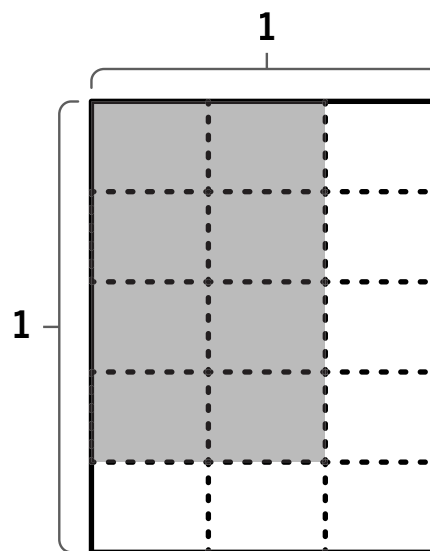


answer: \_\_\_\_\_

**Use the diagram provided for Problems 4 and 5**

- 4** Write an equation to represent the area of the shaded rectangular region in the diagram in square units.

\_\_\_\_\_



- 5** Explain how your equation in Problem 4 represents the area of the shaded rectangular region.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Additional Practice****3.07**

**1** Determine the product of the expression  $2\frac{2}{5} \times \frac{9}{10}$ . Select *all* that apply.

**A**  $\frac{99}{50}$

**B**  $\frac{22}{25}$

**C**  $\frac{54}{25}$

**D**  $\frac{108}{50}$

**E**  $2\frac{18}{50}$

**2** Evaluate the expression  $3\frac{3}{4} \times \frac{3}{5}$ . Show your work.

**i** Show your thinking.

Name \_\_\_\_\_ Date \_\_\_\_\_

**For Problems 3–5, evaluate the expression**

 **Show your thinking.** \_\_\_\_\_

**3**  $\frac{2}{7} \times \frac{4}{6}$

**answer:** \_\_\_\_\_

**4**  $\frac{4}{7} \times 3\frac{2}{9}$

**answer:** \_\_\_\_\_

**5**  $3\frac{5}{8} \times \frac{7}{4}$

**answer:** \_\_\_\_\_

**Additional Practice****3.08**

For Problems 1–3, determine the value that makes the equation true.

**1**  $\frac{3}{4} \times \underline{\hspace{2cm}} = \frac{18}{28}$

**2**  $\underline{\hspace{2cm}} \times \frac{7}{6} = \frac{35}{42}$

**3**  $\frac{4}{9} \times \underline{\hspace{2cm}} = \frac{20}{27}$

- 4** A rectangle has a width of  $\frac{8}{4}$  inches and an area of  $\frac{32}{20}$  square inches. What is its length in inches?

**i** Show or explain your thinking.

answer: \_\_\_\_\_

Name \_\_\_\_\_ Date \_\_\_\_\_

**5** Match each equation with the correct missing value

**Equation**

**Missing Value**

a.  $\frac{2}{3} \times \frac{7}{8}$

\_\_\_\_\_  $\frac{15}{56}$

b.  $\frac{3}{8} \times \frac{5}{7}$

\_\_\_\_\_  $1\frac{9}{33}$

c.  $3\frac{2}{3} \times \frac{4}{7}$

\_\_\_\_\_  $\frac{14}{24}$

d.  $\frac{6}{11} \times 2\frac{1}{3}$

\_\_\_\_\_  $2\frac{2}{21}$

**6** Solve the missing value in the equation.

$\frac{3}{7} \times 1\frac{3}{5} = ?$

**i** Show or explain your thinking.

answer: \_\_\_\_\_

**Additional Practice****3.09****For Problems 1–3, complete the comparison using  $<$ ,  $>$ , or  $=$** 

**1**  $625 \times \frac{9}{8}$  \_\_\_\_\_  $625$

**2**  $625 \times \frac{2}{5}$  \_\_\_\_\_  $625$

**3**  $625 \times \frac{3}{3}$  \_\_\_\_\_  $625$

**Use the situation for Problem 4.****Priya, Diego, and Clare went for a bike ride.**

- Priya rode a certain number of kilometers.
- Diego rode  $\frac{5}{4}$  times as far as Priya.
- Clare rode  $\frac{3}{5}$  times as far as Priya.

**4** Order the students' names from least to greatest based on the number of kilometers each rode. **Show your thinking.**\_\_\_\_\_ , \_\_\_\_\_ , \_\_\_\_\_  
**least****greatest**

Name \_\_\_\_\_ Date \_\_\_\_\_

**Use the situation for Problem 5.**

**The Jones family went on a family trip.**

- Mom drove for several miles.
- Dad drove  $1\frac{2}{3}$  times as far as Mom.
- Grandpa drove  $\frac{3}{5}$  as far as Mom.

**5** Who drove the longest and shortest distance?

**i** Show or explain your thinking.

answer: \_\_\_\_\_

**6** Match each statement with the missing value that makes the comparison true.

**Equation**

**Missing Value**

a.  $2987 \times \frac{\square}{\square} = 2987$

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

b.  $463 \times \frac{\square}{\square} > 463$

\_\_\_\_\_  $\frac{9}{9}$

c.  $15,639 \times \frac{\square}{\square} < 15,639$

\_\_\_\_\_  $\frac{11}{4}$

# Additional Practice

3.10

Problems 1–4, complete the comparison using  $<$ ,  $>$ , or  $=$ .

1  $\frac{99}{100} \times \frac{99}{100}$  \_\_\_\_\_  $\frac{99}{100}$

2  $\frac{99}{100} \times \frac{100}{99}$  \_\_\_\_\_  $\frac{99}{100}$

3  $\frac{75}{65} \times \frac{74}{65}$  \_\_\_\_\_  $\frac{75}{65}$

4  $\frac{75}{65} \times \frac{74}{65}$  \_\_\_\_\_  $\frac{74}{65}$

5 Order the expressions from least to greatest.

$25 \times \frac{2}{4}$

$25 \times \frac{1}{4}$

$25 \times \frac{4}{4}$

$25 \times \frac{3}{4}$

\_\_\_\_\_ , \_\_\_\_\_ , \_\_\_\_\_ , \_\_\_\_\_  
**least** **greatest**

6 Order the expressions from greatest to least.

$20 \times \frac{6}{5}$

$12 \times \frac{2}{3}$

$\frac{5}{4} \times 12$

$\frac{3}{5} \times 20$

\_\_\_\_\_ , \_\_\_\_\_ , \_\_\_\_\_ , \_\_\_\_\_  
**greatest** **least**

Name \_\_\_\_\_ Date \_\_\_\_\_

- 7 The expressions are in order from least to greatest. Explain how you know this statement is true.

 Show or explain your thinking.

$$\underline{4 \times \frac{3}{5}}, \quad \underline{8 \times \frac{1}{2}}, \quad \underline{10 \times \frac{3}{4}}, \quad \underline{\frac{6}{5} \times 15}$$

**least** **greatest**

For Problems 8–11, determine whether each comparison statement is true or false. Place a check mark in the correct column.

	Comparison Statement	True	False
8	$\frac{15}{8} \times \frac{1}{11} < \frac{8}{15} \times \frac{1}{11}$		
9	$\frac{15}{8} \times \frac{11}{1} = \frac{8}{15} \times \frac{1}{11}$		
10	$35 \times \frac{10}{12} = 35 \times \frac{5}{6}$		
11	$35 \times \frac{10}{12} > 35 \times \frac{6}{5}$		

# Additional Practice

3.11

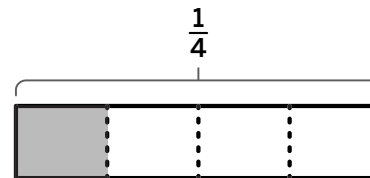
1 Determine which expressions represent the tape diagram. Select *all* that apply.

(A)  $\frac{1}{4} \div 2$

(B)  $\frac{1}{4} \div 4$

(C)  $\frac{1}{7}$

(D)  $\frac{1}{16}$



Use the situation for Problems 2–4

A pot of soup is  $\frac{1}{3}$  full and shared equally by 4 friends.

2 Represent the situation with a diagram.

 Draw

3 Write a division expression to represent the situation

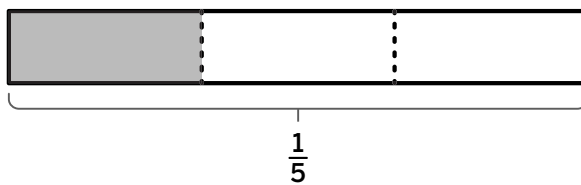
\_\_\_\_\_

4 How much of the pot of soup does each friend get?

\_\_\_\_\_

Name \_\_\_\_\_ Date \_\_\_\_\_

Use the diagram for Problems 5 and 6.



5 Write a division expression to represent the shaded region.

\_\_\_\_\_

6 What fraction does the shaded region represent?

**i** Show your thinking.

answer: \_\_\_\_\_

7 4 friends equally share  $\frac{1}{2}$  of a loaf of bread. Represent the situation with a division expression. Then determine how much of a whole loaf of bread each friend receives.

expression: \_\_\_\_\_

answer: \_\_\_\_\_

**Additional Practice****3.12**

- 1** Priya cuts a 6-meter rope into pieces that are each  $\frac{1}{4}$ -meter.

Select the equation that represents how many  $\frac{1}{4}$ -meter pieces Priya cuts.

**(A)**  $\frac{1}{4} \div 6 = \frac{1}{24}$

**(B)**  $6 \div \frac{1}{4} = 24$

**(C)**  $\frac{1}{6} \div 4 = \frac{1}{24}$

**(D)**  $6 + \frac{1}{4} = \frac{1}{24}$

- 2** Han has a ribbon that is 3 feet long. He cuts it into pieces that are each  $\frac{1}{6}$ -foot long.

Determine how many  $\frac{1}{6}$ -foot pieces Han makes. Then write a division equation to represent the situation.

**i** Show or explain your thinking.

answer: \_\_\_\_\_ expression: \_\_\_\_\_

- 3** Match each expression with the value that makes the equation true.

**Expression**

**Value**

a.  $8 \div \frac{1}{3} =$  \_\_\_\_\_ 20

b.  $5 \div \frac{1}{4} =$  \_\_\_\_\_ 12

c.  $6 \div \frac{1}{2} =$  \_\_\_\_\_ 24

Name \_\_\_\_\_ Date \_\_\_\_\_

- 4** Sophia has a rope that is 8 feet long. She cuts it into pieces that are each  $\frac{1}{4}$  feet long.

Determine how many pieces she has now. Then write a division equation to represent the situation.

**i** Show or explain your thinking.

answer: \_\_\_\_\_

expression: \_\_\_\_\_

**For Problems 5–8, determine the value that makes the equation true.**

**5**  $6 \div \frac{1}{3} =$  \_\_\_\_\_

**7**  $50 \div \frac{1}{5} =$  \_\_\_\_\_

**6**  $12 \div \frac{1}{4} =$  \_\_\_\_\_

**8**  $9 \div \frac{1}{9} =$  \_\_\_\_\_

# Additional Practice

3.13

For Problems 1 and 2, write an equation that represents the problem. Then solve the problem.

 Show or explain your thinking.

- 1** 5 gallons of juice are poured equally into bottles that each hold  $\frac{1}{4}$ -gallon. How many  $\frac{1}{4}$ -gallon bottles are there?

equation: \_\_\_\_\_ answer: \_\_\_\_\_

- 2** 6 friends divide  $\frac{1}{3}$  of a cake equally. How much cake does each friend get?

equation: \_\_\_\_\_ answer: \_\_\_\_\_

- 3** Write a story problem that represents the expression  $6 \div \frac{1}{2}$ .

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Name \_\_\_\_\_ Date \_\_\_\_\_

**For problems 4 and 5, match each expression with a story problem**

$$8 \div \frac{1}{2}$$

$$\frac{1}{2} \div 8$$

- 4** Clare cut 8 feet of ribbon into pieces that are  $\frac{1}{2}$  feet long.  
How many pieces are there?

\_\_\_\_\_

- 5** Priya cut a  $\frac{1}{2}$ -foot-long piece of ribbon into 8 equal pieces.  
How long is each piece?

\_\_\_\_\_

- 6** Match each quotient with the expression that has an equal value.

**Quotient**

**Expression**

a.  $\frac{1}{30}$

\_\_\_\_\_  $3 \div \frac{1}{5}$

b.  $\frac{1}{12}$

\_\_\_\_\_  $6 \div \frac{1}{6}$

c. 36

\_\_\_\_\_  $\frac{1}{6} \div 2$

d. 15

\_\_\_\_\_  $\frac{1}{5} \div 6$

**Additional Practice****3.14**

- 1**  $\frac{1}{2}$  of a birthday cake is left from a party. 3 family members share the remaining cake equally. Choose *all* of the equations that represent how much of the whole cake each family member gets.

**(A)**  $3 \div \frac{1}{2} = 6$

**(B)**  $\frac{1}{3} \times \frac{1}{2} = \frac{1}{6}$

**(C)**  $\frac{1}{2} \div 3 = \frac{1}{6}$

**(D)**  $3 \times 2 = 6$

- 2** Heidi cuts  $\frac{1}{4}$  of a cake for her 6 friends to share equally. Write a multiplication equation and a division equation to represent how much of the whole cake each friend gets.

**multiplication equation:** \_\_\_\_\_

**division equation:** \_\_\_\_\_

- 3** Vincent cut a 12-foot rope into  $\frac{1}{6}$ -foot pieces. Write a multiplication equation and a division equation to represent how many pieces of rope Vincent was able to cut.

**multiplication equation:** \_\_\_\_\_

**division equation:** \_\_\_\_\_

Name \_\_\_\_\_ Date \_\_\_\_\_

4 Write the missing equivalent expressions (multiplication or division).

Multiplication	Division
	$\frac{1}{4} \div 7 = \frac{1}{28}$
$5 \times 4 = 20$	
	$8 \div \frac{1}{3} = 24$
$\frac{1}{2} \times \frac{1}{6} = \frac{1}{12}$	

5 Match each quotient to the correct division expression.

**Quotient**

**Expression**

a. 15

\_\_\_\_\_  $4 \div \frac{1}{6}$

b. 20

\_\_\_\_\_  $5 \div \frac{1}{5}$

c. 24

\_\_\_\_\_  $5 \div \frac{1}{3}$

d. 25

\_\_\_\_\_  $5 \div \frac{1}{4}$

6 Which expressions have a value of  $\frac{1}{30}$ ? Select *all* that apply.

(A)  $\frac{1}{6} \div 5$

(B)  $\frac{1}{8} \div 3$

(C)  $\frac{1}{30} \div 3$

(D)  $\frac{1}{5} \div 6$

(E)  $\frac{1}{1} \div 10$

(F)  $\frac{1}{15} \div 2$

**Additional Practice****3.15**

- 1** Priya has 3 bags of cat food. She uses  $\frac{1}{6}$  of a bag of food each week. Choose the equation that represents how many weeks the cat food will last.

**(A)**  $3 \div \frac{1}{6} = 18$

**(B)**  $\frac{1}{3} \times \frac{1}{6} = \frac{1}{18}$

**(C)**  $\frac{1}{6} \times 3 = \frac{3}{6}$

**(D)**  $6 \div 3 = 2$

**For Problems 2–4, write an equation to represent the story problem.**

- 2** Clare had  $\frac{1}{4}$  of a cucumber. She divided it equally into 5 slices to share with her friends. What fraction of the whole cucumber was in each slice?

\_\_\_\_\_

- 3** Diego had  $\frac{1}{2}$  of a watermelon. He cut it into 4 equal slices to share with his friends. What fraction of the whole watermelon was in each slice?

\_\_\_\_\_

- 4** Han had  $\frac{1}{4}$  of a banana. He ate  $\frac{1}{2}$  of it. What fraction of the whole banana did Han eat?

\_\_\_\_\_

Name \_\_\_\_\_ Date \_\_\_\_\_

**For Problems 5–8, create a story problem that represents the given expression. Write the solution to the problem.**

**5** Create a story problem that represents the expression  $\frac{1}{4} \times \frac{1}{7}$ .

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**6** Write the answer to the story problem you created in Problem 5.

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**7** Create a story problem that represents the expression  $\frac{1}{4} \div 2$ .

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**8** Write the answer to the story problem you created in Problem 7.

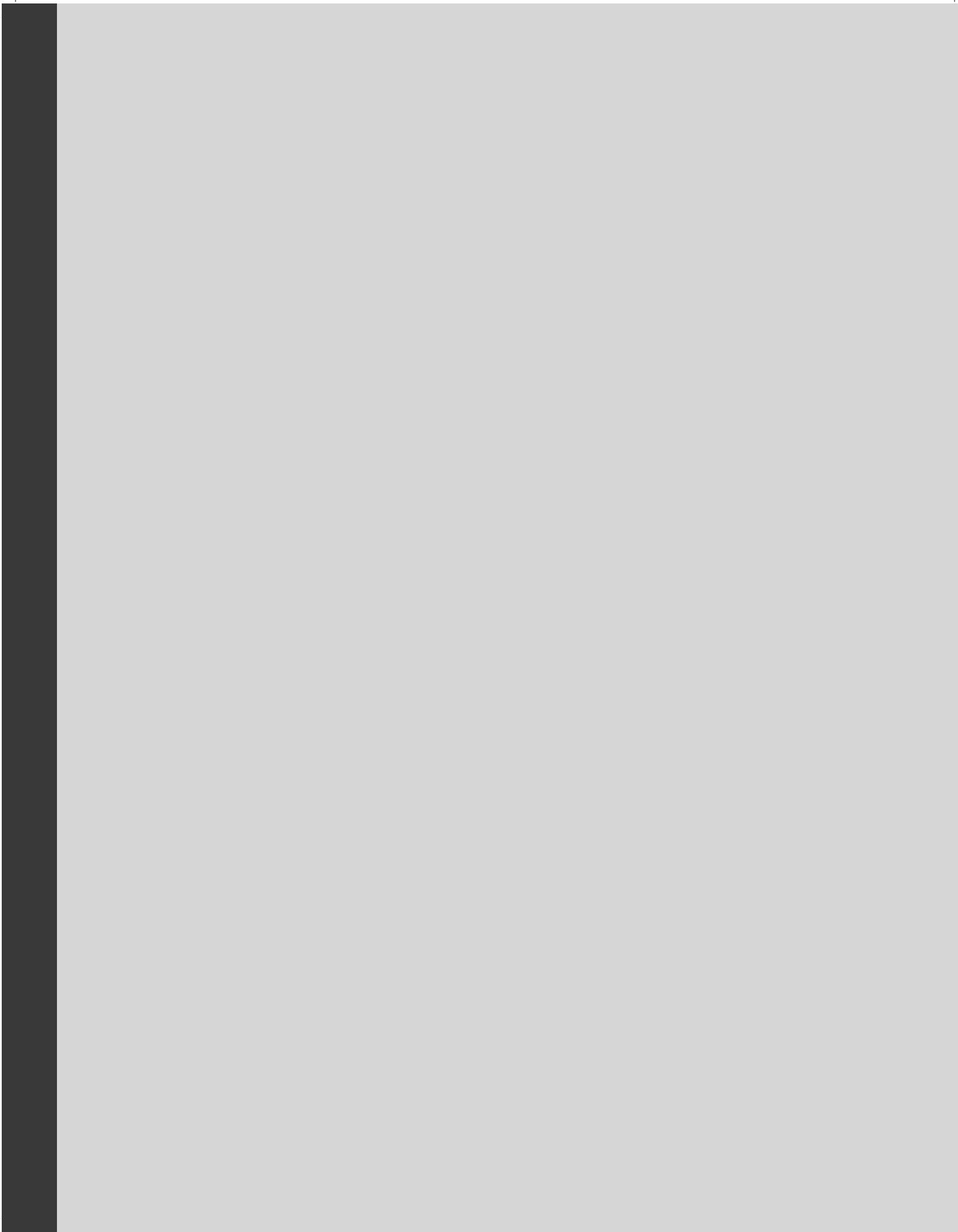
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Grade 5 | **Unit 4**

# Additional Practice

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## Practice Problems



# Additional Practice

4.02

1 Which area diagram represents the product  $546 \times 29$ ?

(A)

	5	4	6
2	10	8	12
9	45	36	54

(B)

	500	40	6
20	10,000	800	120
9	4500	360	54

(C)

	500	40	6
2	1000	80	12
9	4500	360	54

(D)

	500	40	6
10	5000	400	60
19	4500	560	118

2 Clare is curious about the number of student desks in her school. She counts 28 desks in each classroom. If there are 39 classrooms in the school, how many student desks are there in total?

Write an equation to represent an estimate.

\_\_\_\_\_

3 Priya is organizing books in the school library. She notices that each shelf holds 34 books. If there are 52 shelves in the library, how many books are there in total?

Write an equation to represent an estimate.

\_\_\_\_\_

Name \_\_\_\_\_ Date \_\_\_\_\_

**For Problems 4-6, estimate the product.**

 Show your thinking.

**4**  $4,725 \times 6$

**estimate:** \_\_\_\_\_

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**5**  $37 \times 46$

**estimate:** \_\_\_\_\_

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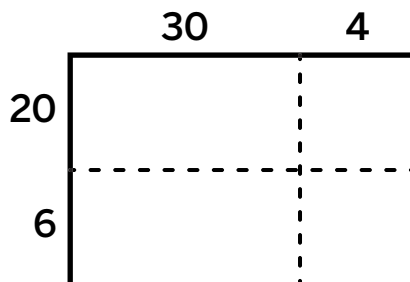
**6**  $826 \times 54$

**estimate:** \_\_\_\_\_

# Additional Practice

4.03

- 1 Diego is using an area diagram to determine the product of  $26 \times 34$ . Which partial products represent the product?



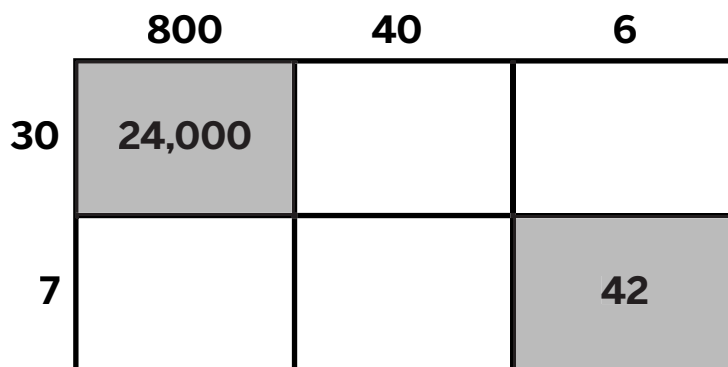
(A) 
$$\begin{array}{r} 600 \\ 180 \\ 24 \\ + 8 \\ \hline 812 \end{array}$$

(B) 
$$\begin{array}{r} 600 \\ 80 \\ 24 \\ + 18 \\ \hline 722 \end{array}$$

(C) 
$$\begin{array}{r} 600 \\ 180 \\ 80 \\ + 24 \\ \hline 884 \end{array}$$

(D) 
$$\begin{array}{r} 60 \\ 80 \\ 18 \\ + 24 \\ \hline 182 \end{array}$$

- 2 Use partial products to complete the area diagram.



Name \_\_\_\_\_ Date \_\_\_\_\_

**For Problems 3 and 4 determine the product.**

 Show your thinking.

**3**  $62,315 \times 8$

answer: \_\_\_\_\_

---

**4**  $742 \times 36$

answer: \_\_\_\_\_

# Additional Practice

4.04

For Problems 1 and 2, use the partial products to determine the missing digits in the factors.

1

$$\begin{array}{r}
 \square, 1 \square 2 \\
 \times \quad 6 \\
 \hline
 \phantom{+} 12 \\
 \phantom{+} 240 \\
 \phantom{+} 600 \\
 + 30,000 \\
 \hline
 30,852
 \end{array}$$

2

$$\begin{array}{r}
 7, \square 2 \square \\
 \times \quad 8 \\
 \hline
 \phantom{+} 40 \\
 \phantom{+} 160 \\
 \phantom{+} 2,400 \\
 + 56,000 \\
 \hline
 58,600
 \end{array}$$

Write an expression to show how each partial product value was determined.

3

$$\begin{array}{r}
 82,457 \\
 \times \quad 6 \\
 \hline
 480,000 \\
 12,000 \\
 2,400 \\
 300 \\
 + 42 \\
 \hline
 494,742
 \end{array}$$

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Name \_\_\_\_\_ Date \_\_\_\_\_

Show the value of each partial product by completing the boxes.  
The expression for the first partial product is completed for you.

4

$$\begin{array}{r} 63,215 \\ \times \quad 4 \\ \hline \end{array}$$

2	4	0,	0	0	0

$60,000 \times 4$

For Problems 5 and 6, use a partial products algorithm to determine the product.

 Show your thinking.

5

$$\begin{array}{r} 375 \\ \times 42 \\ \hline \end{array}$$

answer: \_\_\_\_\_

6

$$\begin{array}{r} 528 \\ \times 37 \\ \hline \end{array}$$

answer: \_\_\_\_\_

# Additional Practice

4.05

For Problems 1 and 2, determine the missing partial products.

1

$$\begin{array}{r}
 413 \\
 \times 21 \\
 \hline
 \square\square\square \\
 \square\square\square\square \\
 \hline
 8673
 \end{array}$$

2

$$\begin{array}{r}
 324 \\
 \times 12 \\
 \hline
 \square\square\square \\
 \square\square\square\square \\
 \hline
 3888
 \end{array}$$

For Problems 3 and 4, write an equation to represent an estimate. Then use the standard algorithm to multiply.

 Show your thinking.

3

$$\begin{array}{r}
 523 \\
 \times 23 \\
 \hline
 \end{array}$$

answer: \_\_\_\_\_

Name \_\_\_\_\_ Date \_\_\_\_\_

**i** Show your thinking.

**4**

$$\begin{array}{r} 622 \\ \times 12 \\ \hline \end{array}$$

answer: \_\_\_\_\_

For Problems 5 and 6, determine the missing digits in the factor.

**5**

$$\begin{array}{r} 3 \square 4 \\ \times 2 \square \\ \hline 354 \\ + 7,080 \\ \hline 7,434 \end{array}$$

**6**

$$\begin{array}{r} \square 27 \\ \times \square 4 \\ \hline 2,508 \\ + 18,810 \\ \hline 21,318 \end{array}$$

# Additional Practice

4.06

1 Which expression does not require composing units?

(A)  $2,134 \times 3$

(B)  $48 \times 27$

(C)  $525 \times 11$

(D)  $312 \times 14$

2 Help Priya complete the standard algorithm by recording the composed unit above the correct factor. Then complete the algorithm.

	1	2	3
×		4	2

3 Will you need to compose units when evaluating  $204 \times 31$ ?

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Name \_\_\_\_\_ Date \_\_\_\_\_

For Problems 4 and 5, determine the missing digits in the factors.

 Show your thinking.

4

$$\begin{array}{r} 2 \square 2 \\ \times \quad 1 \square \\ \hline 7 \ 5 \ 6 \\ + 2, \ 5 \ 2 \ 0 \\ \hline 3, \ 2 \ 7 \ 6 \end{array}$$

5

$$\begin{array}{r} 3 \square 3 \\ \times \quad 3 \square \\ \hline 3 \ 0 \ 3 \\ + 9, \ 0 \ 9 \ 0 \\ \hline 9, \ 3 \ 9 \ 3 \end{array}$$

6 Write a multiplication expression that will require you to compose units.


 Show or explain your thinking.

answer: \_\_\_\_\_

# Additional Practice

4.07

For Problems 1 and 2, determine the product using the standard algorithm.

 Show your thinking.

1

$$\begin{array}{r} 853 \\ \times 26 \\ \hline \end{array}$$

answer: \_\_\_\_\_

2

$$\begin{array}{r} 942 \\ \times 31 \\ \hline \end{array}$$

answer: \_\_\_\_\_

**i Show your thinking.**

**3** Determine the product of  $635 \times 27$  using the standard algorithm.

answer: \_\_\_\_\_

**4** Determine the product of  $712 \times 39$  using the standard algorithm.

answer: \_\_\_\_\_

**Use the standard algorithm to solve Problems 5-6.**

**i Show your thinking.**

**5** An auditorium has 356 rows of seats and each row has 27 seats. How many seats are in the entire auditorium?

answer: \_\_\_\_\_

**6** A gardening supply store sells 1 pack of organic fertilizer for \$36. A farmer purchases 138 packs of fertilizer. Determine the total cost of the fertilizer.

answer: \$ \_\_\_\_\_

## Additional Practice

4.08

1 What is the product of  $427 \times 63$ ?

(A) 27,821

(B) 26,901

(C) 24,921

(D) 3,721

 Show your thinking.

2 What is the product of  $826 \times 51$ ?

(A) 29,328

(B) 40,226

(C) 28,728

(D) 42,126

 Show your thinking.

Name \_\_\_\_\_ Date \_\_\_\_\_

For Problems 3 and 4, determine the product using the standard algorithm.

 Show your thinking.

3

$$\begin{array}{r} 2784 \\ \times \quad 23 \\ \hline \end{array}$$

answer: \_\_\_\_\_

4

$$\begin{array}{r} 591 \\ \times \quad 43 \\ \hline \end{array}$$

answer: \_\_\_\_\_

Use the standard algorithm to solve Problems 5–7.

 Show your thinking.

5

An animal sanctuary has 125 tigers, and each tiger drinks 12 gallons of water per day. How many gallons of water do all the tigers drink in a day?

answer: \_\_\_\_\_

6

There are approximately 600 students in an elementary school. Typically, each student spends 45 minutes each day at recess. Determine how many minutes of recess are spent in recess by all the students.

answer: \_\_\_\_\_

## Additional Practice

4.09

 Show your thinking.

- 1** Determine the product of  $478 \times 76$  using the standard algorithm.

answer: \_\_\_\_\_

- 2** Determine the product of  $678 \times 74$  using the standard algorithm.

answer: \_\_\_\_\_

- 3** A nature park in a city is shaped like a rectangle, with a length of 90 meters and a width of 80 meters. Determine its area in square meters.

answer: \_\_\_\_\_

- 4** An amusement park is shaped like a rectangle that is 825 meters long and 56 meters wide. Determine its area in square meters.

answer: \_\_\_\_\_

For Problems 5 and 6, use the digits 7, 4, 2, 1, and 5 to form 2 different multiplication problems. Determine the product using the standard algorithm.

**i** Show your thinking.

5

$$\begin{array}{r} \square \square \square \\ \times \quad \square \square \\ \hline \end{array}$$

answer: \_\_\_\_\_

6

$$\begin{array}{r} \square \square \square \\ \times \quad \square \square \\ \hline \end{array}$$

answer: \_\_\_\_\_

**i** Show your thinking.

7 Which multiplication expression has a product of 23,040?

- (A)  $480 \times 48$       (B)  $510 \times 45$   
 (C)  $630 \times 37$       (D)  $574 \times 40$

8 Which multiplication expression has a product of 26,368?

- (A)  $824 \times 32$       (B)  $942 \times 24$   
 (C)  $715 \times 28$       (D)  $806 \times 26$

## Additional Practice

4.10

1 Which expression has a quotient of 150?

- (A)  $3,000 \div 20$    (B)  $4,500 \div 30$    (C)  $6,000 \div 40$    (D)  $7,500 \div 50$

 Show your thinking.

For Problems 2 and 3, determine the quotient using 5 or fewer partial quotients.

2  $1,764 \div 42$

 Show your thinking.

answer: \_\_\_\_\_

Name \_\_\_\_\_ Date \_\_\_\_\_

**3**  $2,184 \div 28$

 Show your thinking.

answer: \_\_\_\_\_

 Show your thinking.

**4** Evaluate the expression  $3,456 \div 24$  using partial quotients.

answer: \_\_\_\_\_

**5** Evaluate the expression  $6,552 \div 28$  using partial quotients.

answer: \_\_\_\_\_

## Additional Practice

4.11

- 1 What is the place value of the largest partial quotient for the expression of  $6,240 \div 80$ ? Show your thinking.

(A) tens    (B) hundreds    (C) thousands    (D) ones

 Show your thinking.

- 2 Determine the quotient  $5,184 \div 64$ .

 Show your thinking.

answer: \_\_\_\_\_

Name \_\_\_\_\_ Date \_\_\_\_\_

**3** The state of Delaware is about 1,949 square miles. The city of Los Angeles is about 502 square miles. Which expression is the best estimate to determine how many times larger the state of Delaware is than the city of Los Angeles?

(A)  $2,000 \div 500$

(B)  $1,900 \div 50$

(C)  $1,000 \div 100$

(D)  $1,800 \div 900$

**4** Clare works as a dog walker and earns \$12 per hour. She wants to buy a new laptop that costs \$4,320. Clare thinks she needs to work 3,600 hours to afford the laptop. Do you agree with Clare? Why or why not?

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**For Problems 5 and 6, determine the quotient using partial quotients.**

**i** Show your thinking.

**5**  $2,730 \div 39$

**6**  $3,648 \div 57$

answer: \_\_\_\_\_

answer: \_\_\_\_\_

## Additional Practice

4.12

1 Which expression has a quotient of 96?

- (A)  $960 \div 12$       (B)  $1,128 \div 12$       (C)  $1,536 \div 16$       (D)  $1,274 \div 13$

 Show your thinking.

2 Evaluate the expression  $3,456 \div 24$  using partial quotients.

 Show your thinking.

answer: \_\_\_\_\_

Name \_\_\_\_\_ Date \_\_\_\_\_

For Problems 3 and 4, evaluate the expression using partial quotients.

 Show your thinking.

**3**  $5,184 \div 32$

**4**  $6,552 \div 36$

answer: \_\_\_\_\_

answer: \_\_\_\_\_

- 5** Priya earns \$18 an hour at her job. She is trying to save \$3,240. How many hours will Priya need to work to save \$3,240?

 Show your thinking.

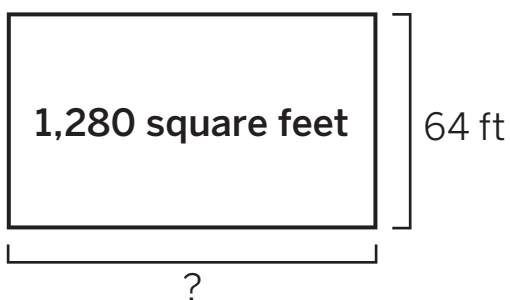
answer: \_\_\_\_\_

## Additional Practice

4.13

- 1 Determine the missing side length.

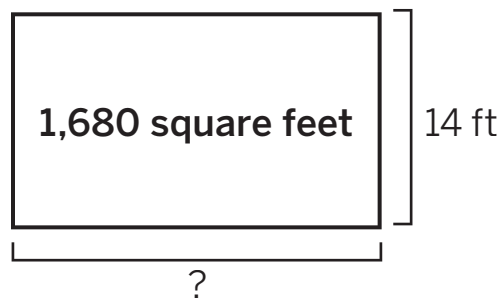
**i** Show your thinking. \_\_\_\_\_



answer: \_\_\_\_\_

- 2 Determine the missing side length.

**i** Show your thinking. \_\_\_\_\_



answer: \_\_\_\_\_

- 3 A fish tank has a total volume of 240 cubic inches. The area of the base of the tank is 40 square inches. What is the height of the tank in inches?

- (A) 5 inches                      (B) 6 inches  
 (C) 7 inches                      (D) 8 inches

Name \_\_\_\_\_ Date \_\_\_\_\_

**4** A rectangular prism has a volume of 495 cubic meters. The height of the prism is 9 meters. What is the area of the base?

**(A)** 48 square meters

**(B)** 55 square meters

**(C)** 45 square meters

**(D)** 50 square meters

**5** A shipping box has a total volume of 1,792 cubic inches and a length of 32 inches. Find one possible combination of width and height.

**i** Show your thinking.

answer: \_\_\_\_\_

**6** A large rectangular swimming pool covers an area of 1,125 square feet. The width of the pool is 25 feet. What is the length of the pool in feet?

**i** Show your thinking.

answer: \_\_\_\_\_

## Additional Practice

4.14

 Show your thinking.

- 1** Diego's rope was 390 inches long. He cut the rope into 12 equal pieces. How many inches is each piece of rope?

answer: \_\_\_\_\_

- 2** A bakery made 478 scones. They sell them in boxes with 15 scones. How many boxes of scones does the bakery have to sell?

answer: \_\_\_\_\_

- 3** Clare and her friends baked a 1,152-inch-long breadstick for a community event. The breadstick was evenly divided among 72 people. How many inches of the breadstick did each person receive?

answer: \_\_\_\_\_

Name \_\_\_\_\_ Date \_\_\_\_\_

- 4 A toy store had 968 trade cards. They sell them in boxes with 15 cards. How many boxes of cards does the store have to sell?

 Show your thinking.

answer: \_\_\_\_\_

- 5 A hiker plans to hike a total distance of 1,159 miles along a scenic trail. She wants to split this distance evenly across 72 days of hiking. How many miles will she hike each day?

 Show your thinking.

answer: \_\_\_\_\_

**Additional Practice****4.15**

- 1** A bakery is packing muffins into boxes. In which situation will each box contain exactly 12 muffins?
- (A) 144 muffins are packed into 12 boxes.
  - (B) 120 muffins are packed into 12 boxes.
  - (C) 132 muffins are packed into 12 boxes.
  - (D) 108 muffins are packed into 11 boxes.
- 2** A warehouse is packing boxes of books. In which situation will each box contain exactly 18 books?
- (A) 324 books are packed into 16 boxes.
  - (B) 360 books are packed into 20 boxes.
  - (C) 288 books are packed into 18 boxes.
  - (D) 342 books are packed into 18 boxes.
- 3** A farmer is packing oranges into crates. In which situation will each crate contain exactly 36 oranges?
- (A) 720 oranges are packed into 22 crates.
  - (B) 972 oranges are packed into 25 crates.
  - (C) 1,008 oranges are packed into 32 crates.
  - (D) 864 oranges are packed into 24 crates.

Name \_\_\_\_\_ Date \_\_\_\_\_

- 4** A farm harvests 5,376 apples and packs them into 42 baskets. How many apples are in each basket?

**i** Show your thinking.

answer: \_\_\_\_\_

- 5** A total of 1264 students signed up for a field trip to the zoo. Each tour guide could take 30 students per group. Any remaining students were placed into groups, making some groups have 31 students instead. How many groups had 30 students? How many groups had 31 students? show your thinking.

**i** Show your thinking.

answer: \_\_\_\_\_

## Additional Practice

4.16

1 What is the value of the expression  $15 + (5,600 \div 70)$ ?

- (A) 85      (B) 90      (C) 95      (D) 110

2 What is the value of the expression  $25 + (3,600 \div 60)$ ?

- (A) 60      (B) 75      (C) 80      (D) 85

3 What is the value of the expression  $15 + (9,594 \div 78)$ ?

 Show your thinking. \_\_\_\_\_

answer: \_\_\_\_\_

4 What is the value of the expression  $18 + (5,184 \div 48)$ ?

 Show your thinking. \_\_\_\_\_

answer: \_\_\_\_\_

Name \_\_\_\_\_ Date \_\_\_\_\_

**Use the information for Problems 5 and 6.**

A warehouse stores 9,800 toys. The toys are packed in 35 large crates, with each crate containing the same number of smaller boxes. In each crate, there are 20 smaller boxes of toys.

**5** How many toys are in each smaller box?

 **Show your thinking.**

**answer:** \_\_\_\_\_

**6** Write an equation to represent your work.

\_\_\_\_\_

**Additional Practice****4.17**

For Problems 1–4, match the written expression with the correct numerical expression.

**Written Expression****Numerical Expression**

**1** Triple the quotient of 720 and 40 \_\_\_\_\_  $(720 \times 3) - 40$

**2** 3 more than the product of 720 and 40 \_\_\_\_\_  $(720 - 40) \div 3$

**3** The difference between 720 and 40, divided by 3 \_\_\_\_\_  $3 + (720 \times 40)$

**4** 40 less than the product of 720 and 3 \_\_\_\_\_  $3 \times (720 \div 40)$

**5** Which numerical expression is equal to the written expression "quadruple the quotient of 840 and 35." Select all that apply.

**A**  $4 \times (35 + 840)$

**B**  $4 \times (840 \div 35)$

**C**  $(840 \div 35) \times 4$

**D**  $4 + (35 \times 840)$

**E**  $4 \times (840 - 35)$

Name \_\_\_\_\_ Date \_\_\_\_\_

**For Problems 6–9, complete the comparison statement using  $<$ ,  $>$ , or  $=$  without evaluating.**

**6**  $2 + (8 \times 3)$  \_\_\_\_\_  $2 + (8 \times 4)$

**7**  $3 \times (12 \div 6)$  \_\_\_\_\_  $3 \times (12 \times 6)$

**8**  $6 \times (14 - 6)$  \_\_\_\_\_  $6 \times (14 - 7)$

**9**  $(18 \div 3) + (12 \div 4)$  \_\_\_\_\_  $(24 \div 6) + (16 \div 4)$

**For Problems 10–12, complete the comparison using  $<$ ,  $>$ , or  $=$  without evaluating.**

**10**  $3,500 - (840 \div 42)$  \_\_\_\_\_  $3,500 - (840 \div 21)$

**11**  $180 \div 9$  \_\_\_\_\_  $180 \div (\frac{1}{2} \times 18)$

**12**  $\frac{1}{1,000} \times 7,250$  \_\_\_\_\_  $7,250 \div \frac{1}{1,000}$

**Additional Practice****4.18**

For Problems 1–4, represent the product as a multiplication expression using only its prime factors.

**1** product: 32

\_\_\_\_\_

**2** product: 28

\_\_\_\_\_

**3** product: 45

\_\_\_\_\_

**4** product: 36

\_\_\_\_\_

**5** Which multiplication expressions represent 60 using only its prime factors? Select all that apply.

(A)  $2 \times 3 \times 5$

(B)  $3 \times 3 \times 2 \times 5$

(C)  $(2 \times 3) \times (2 \times 5)$

(D)  $2 \times 2 \times 3 \times 5$

(E)  $5 \times 3 \times 4$

Name \_\_\_\_\_ Date \_\_\_\_\_

**For Problems 6–9, represent the product as a multiplication expression using only its prime factors. Show or explain your thinking.**

 Show your thinking.

**6** product: 18

answer: \_\_\_\_\_

---

**7** product: 24

answer: \_\_\_\_\_

---

**8** product: 30

answer: \_\_\_\_\_

---

**9** product: 35

answer: \_\_\_\_\_

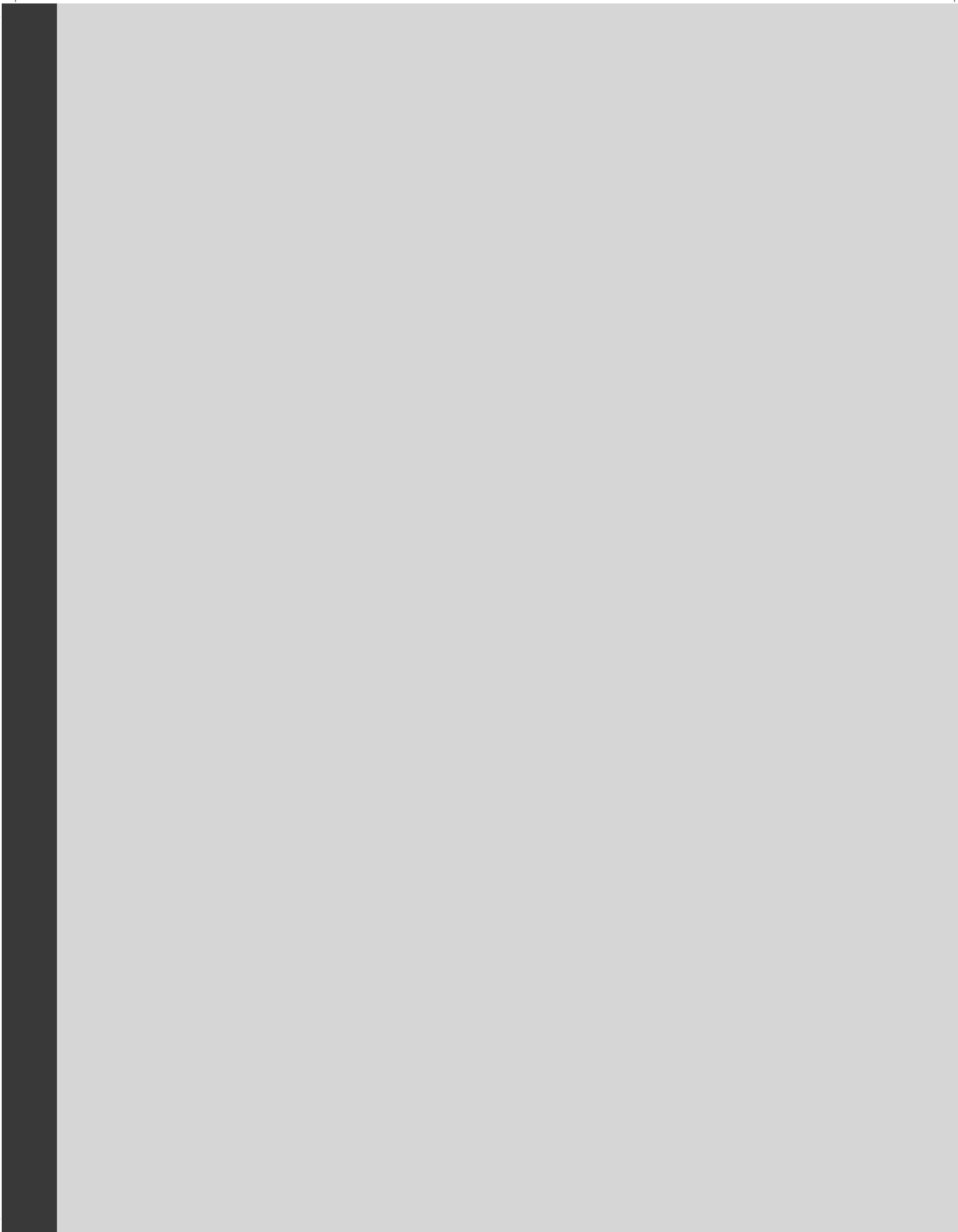
Grade 5

Unit 5

# Additional Practice

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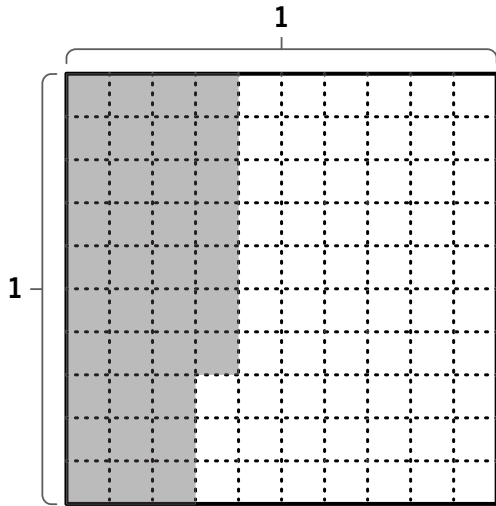
## Practice Problems



# Additional Practice

5.02

- 1 The whole grid represents a value of 1.

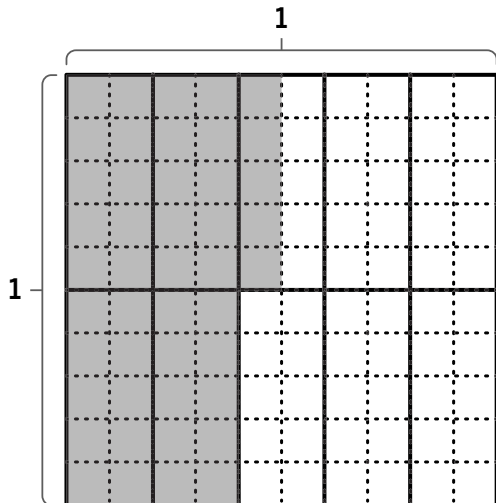


Which decimal does the shaded region of the grid represent? Select *all* that apply.

- |   |   |
|---|---|
| <input type="radio"/> (A) 0.370                       | <input type="radio"/> (B) 0.037               |
| <input type="radio"/> (C) 0.75                        | <input type="radio"/> (D) $\frac{370}{1,000}$ |
| <input type="radio"/> (E) 3 tenths and 70 thousandths | <input type="radio"/> (F) 3 hundredths        |

For Problems 2–4, represent the shaded portion as a decimal. Each whole grid represents a value of 1.

2

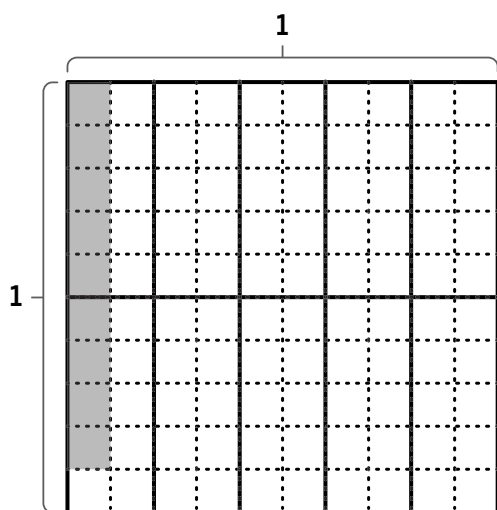


answer: \_\_\_\_\_

Name \_\_\_\_\_

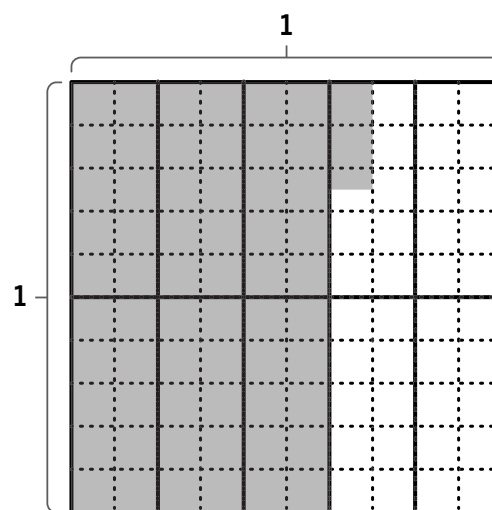
Date \_\_\_\_\_

3



answer: \_\_\_\_\_

4



answer: \_\_\_\_\_

For Problems 5–7, write the fraction as a decimal.

5

$$\frac{3}{10} = \underline{\hspace{2cm}}$$

6

$$\frac{3}{100} = \underline{\hspace{2cm}}$$

7

$$\frac{3}{1,000} = \underline{\hspace{2cm}}$$

For problems 8–10, represent the decimal in 2 different ways.

8

0.256 \_\_\_\_\_  
\_\_\_\_\_

9

0.347 \_\_\_\_\_  
\_\_\_\_\_

10

0.486 \_\_\_\_\_  
\_\_\_\_\_

## Additional Practice

5.03

1 Write 0.749 in words.

---

2 Write 0.240 in words.

---

3 Write 0.572 in expanded form.

---

---

4 Write 5.469 in expanded form.

---

---

5 Write  $0.2 + 0.05 + 0.009$  in standard form.

---

6 Write  $0.4 + 0.09 + 0.002$  in standard form.

---

Name \_\_\_\_\_ Date \_\_\_\_\_

**7** Select *all* the ways to represent  $(6 \times 0.01) + (3 \times 0.001)$ .

- (A) 6 hundredths and 3 thousandths
- (B) 0.63
- (C) 63 thousandths
- (D)  $0.06 + 0.03$
- (E)  $(6 \times 0.01) + (3 \times 0.001)$

**8** Select *all* the ways to represent  $(5 \times 0.1) + (8 \times 0.001)$ .

- (A)  $(5 \times 0.1 + 8 \times 0.01)$
- (B)  $0.5 + 0.008$
- (C) 0.508
- (D) 58 thousandths
- (E) 5 tenths and 8 thousandths

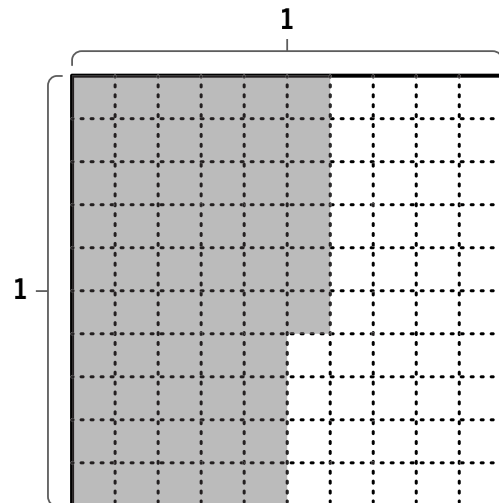
**9** Write 4 different ways to represent the number shown. Make sure to include expanded form.

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## Additional Practice

5.04

- 1 Which option completes the statement to make it true?

The value of the 8 in 482.6 is \_\_\_\_\_ as much as the value of the 8 in 0.826.

- (A)  $\frac{1}{10}$  (B) 10 times  
 (C)  $\frac{1}{100}$  (D) 100 times

For Problems 2–5, use the relationship between the numbers 36.482 and 34.628 to determine whether the statement is *true* or *false*. Place a check mark in the correct column.

	Statement	True	False
2	The value of the 4 in 36.482 is $\frac{1}{10}$ as much as the value of the 4 in 34.628.		
3	The value of the 6 in 34.628 is 10 times as much as the value of the 6 in 36.482.		
4	The value of the 8 in 34.628 is $\frac{1}{100}$ as much as the value of the 8 in 36.482.		
5	The value of the 8 in 36.482 is 10 times as much as the value of the 8 in 34.628.		

- 6 Which completes the statement to make it true?

The value of the 6 in 42.176 is \_\_\_\_\_ as much as the value of the 6 in 17.462.

- (A)  $\frac{1}{10}$  (B) 10 times  
 (C)  $\frac{1}{100}$  (D) 100 times

Name \_\_\_\_\_ Date \_\_\_\_\_

**For Problems 7–9, complete the statement to describe the relationship between the values of the digits.**

**7** The value of the 7 in 47.835 is \_\_\_\_\_ as much as the value of the 7 in 48.753.

**8** The value of the 5 in 25.679 is \_\_\_\_\_ as much as the value of the 5 in 52.967.

**9** The value of the digit 6 in 60.3 is \_\_\_\_\_ as much as the value of the 6 in 0.603.

**10** Select *all* the statements that describe the relationship between the value of the 6 in 25.673 and the value of the 6 in 25.367.

**(A)** The value of the 6 in 25.673 is 10 times the value of the 6 in 25.367.

**(B)** The value of the 6 in 25.673 is  $\frac{1}{10}$  the value of the 6 in 25.367.

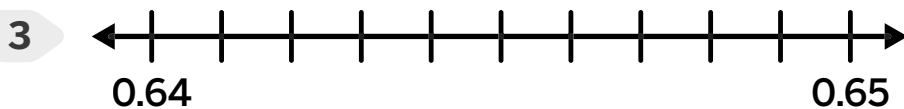
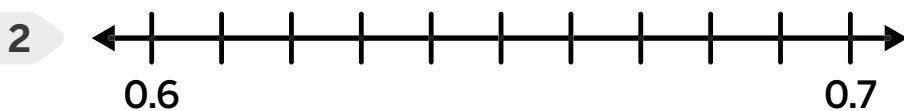
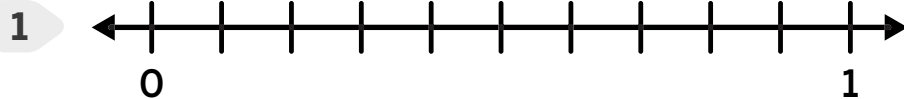
**(C)** The value of the 6 in 25.367 is  $\frac{1}{10}$  the value of the 6 in 25.673.

**(D)** The value of the 6 in 25.367 is  $\frac{1}{100}$  the value of the 6 in 25.673.

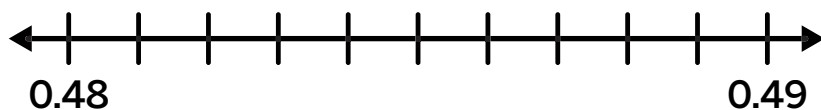
# Additional Practice

5.05

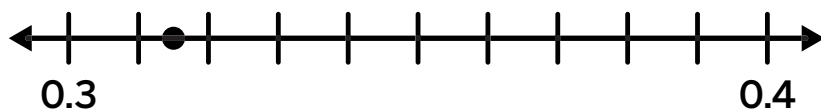
For Problems 1–3, locate and label 0.645 on the number line.



4 Locate and label 0.482 on the number line.



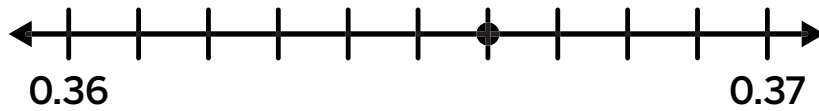
5 Which number could represent the point on the number line?



- (A) 0.35
- (B) 0.315
- (C) 0.301
- (D) 0.38

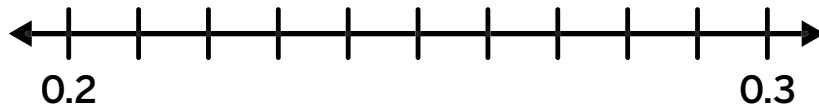
Name \_\_\_\_\_ Date \_\_\_\_\_

**6** Which number could represent the point on the number line?

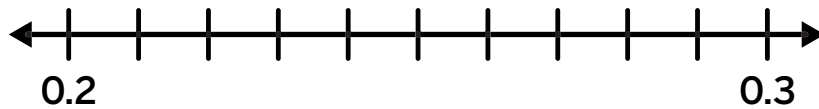


- (A) 0.363      (B) 0.364      (C) 0.365      (D) 0.366

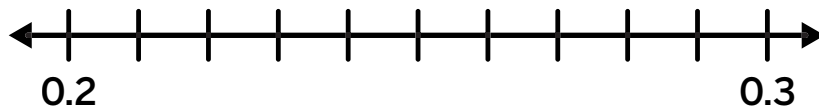
**7** Locate and label 0.255 on the number line.



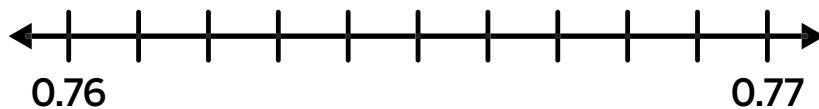
**8** Locate and label 0.275 on the number line.



**9** Locate and label 0.285 on the number line.



**10** Locate and label 0.763 on the number line. Explain your thinking.



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**Additional Practice****5.06**For problems 1–3 fill in the blanks with  $<$ ,  $>$ , or  $=$ .

**1**  $7.5$  \_\_\_\_\_  $7.50$       **2**  $12.47$  \_\_\_\_\_  $12.38$       **3**  $0.1$  \_\_\_\_\_  $0.10$

**4** Which comparison statement is true?

**(A)**  $0.562 > 0.56$

**(B)**  $1.605 < 1.506$

**(C)**  $2.79 > 2.88$

**(D)**  $2.4 < 2.04$

The table below shows the weight of different fruits. Use the table for Problems 5 and 6.

Fruit	Weight (lb.)
apple	0.625
banana	0.75
orange	0.805
pear	0.65

**5** Which fruit has the greatest weight?**(A)** Apple**(B)** Banana**(C)** Orange**(D)** Pineapple**6** Which comparison statements are true? Select *all* that apply.

**(A)**  $0.625 < 0.75$

**(B)**  $0.75 < 0.805$

**(C)**  $0.805 > 0.65$

**(D)**  $0.65 < 0.625$

**(E)**  $0.65 < 0.75$

**(F)**  $0.625 > 0.805$

Name \_\_\_\_\_ Date \_\_\_\_\_

**For Problems 7–9, write a comparison statement about the two decimals.**

 **Show your thinking.**

**7** 0.723 and 0.725

**answer:** \_\_\_\_\_

**8** 0.012 and 0.013

**answer:** \_\_\_\_\_

**9** 0.702 and 0.72

**answer:** \_\_\_\_\_

## Additional Practice

5.07

For Problems 1–4, round the decimal to the given place value. You can use the number line if it is helpful.

- 1 Round 15.782 to the nearest whole number.



answer: \_\_\_\_\_

- 2 Round 42.364 to the nearest tenth.



answer: \_\_\_\_\_

- 3 Round 0.487 to the nearest hundredth.



answer: \_\_\_\_\_

- 4 Round 7.921 to the nearest hundredth.



answer: \_\_\_\_\_

Name \_\_\_\_\_ Date \_\_\_\_\_

**For problems 5–7, round the number 4.654.**

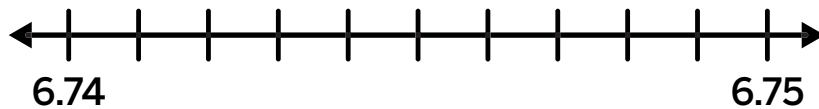
**5** 4.654 rounded to the nearest whole number is \_\_\_\_\_

**6** 4.654 rounded to the nearest tenth is \_\_\_\_\_

**7** 4.654 rounded to the nearest hundredth is \_\_\_\_\_

**Diego has a piece of silver that weighs 6.742 grams. Use the information for Problems 8 and 9:**

**8** Locate and label 6.742 on the number line.



**9** A scale measures to the nearest hundredth of a gram. What will the scale show for the weight of the piece of silver?

**answer:** \_\_\_\_\_

**10** Priya has \$23.76 in her wallet. Rounded to the nearest dollar, how much money does she have? Show or explain your thinking.

**i** Show your thinking. \_\_\_\_\_

**answer:** \_\_\_\_\_

**Additional Practice****5.08**

- 1** Which numbers rounded to 23 as the nearest whole number? Select *all* that apply.
- (A) 22.981                      (B) 22.51                      (C) 23.006
- (D) 22.342                      (E) 23.413                      (F) 23.501
- 2** Which numbers rounded to 45.6 as the nearest tenth? Select *all* that apply.
- (A) 45.602                      (B) 45.58                      (C) 45.12
- (D) 45.644                      (E) 45.685                      (F) 45.548
- 3** Which of these scores round to 91.8 when rounded to the nearest tenth?
- (A) 91.70                      (B) 91.68                      (C) 91.82                      (D) 91.74

**A runner completed a race in 15.745 seconds. Use this to answer questions 4–6.**

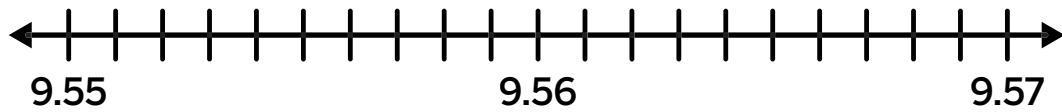
- 4** What is the time rounded to the nearest second?
- \_\_\_\_\_
- 5** What is the time rounded to the nearest tenth of a second?
- \_\_\_\_\_
- 6** What is the time rounded to the nearest hundredth of a second?
- \_\_\_\_\_

Name \_\_\_\_\_ Date \_\_\_\_\_

- 7** The table shows test scores from a math competition. Round each score to the different place values shown in the table.

Score	Nearest whole number	Nearest tenth	Nearest hundredth
78.265			
85.739			
79.951			
88.484			
90.126			
95.875			

- 8** A sprinter's fastest speed was 9.56 meters per second when rounded to the nearest hundredth. Write 10 different possible speeds that round to 9.56 when rounded to the nearest hundredth. You can use the number line if it is helpful.



\_\_\_\_\_

\_\_\_\_\_

## Additional Practice

5.09

**1** What is the sum?  $2.3 + 0.8$

(A) 1.5

(B) 2 and 1 tenth

(C) 3 ones + 1 tenth

(D) 1 and 1 tenth

**2** What is the difference?  $2.4 - 1.8$

(A) 4.2

(B) 2 ones + 6 tenths

(C) 0.06

(D) 6 tenths

**3** Is the sum correct?  $1.2 + 0.7 = 1.5$ . Show or explain your thinking.

**i** Show your thinking.

**4** Is the difference correct?  $3.4 - 0.8 = 2.6$ , Show or explain your thinking.

**i** Show your thinking.

Name \_\_\_\_\_ Date \_\_\_\_\_

**For Problems 5–8, determine the sum or difference. Use diagrams if helpful.**

**5**  $3.7 + 0.5$

**i** Show your thinking.

answer: \_\_\_\_\_

**6**  $3.78 + 0.07$

answer: \_\_\_\_\_

**7**  $3.5 - 0.7$

answer: \_\_\_\_\_

**8**  $3.72 - 0.08$

answer: \_\_\_\_\_

## Additional Practice

5.10

**1** Determine the sum:  $92.54 + 35.61$

(A) 127.15

(B) 128.15

(C) 129.15

(D) 130.15

**2** Determine the sum:  $189.3 + 75.84$

(A) 264.64

(B) 265.14

(C) 266.64

(D) 269.14

For Problems 3 and 4, estimate and determine the sum using the standard algorithm.

**i** Show or explain your thinking.

**3**  $7.43 + 5.68$

estimate: \_\_\_\_\_

answer: \_\_\_\_\_

**4**  $45.36 + 62.75$

estimate: \_\_\_\_\_

answer: \_\_\_\_\_

Name \_\_\_\_\_ Date \_\_\_\_\_

**For Problems 5 and 6, select 2 number cards to write an expression. Then determine the sum. You can only use each number card once only.**

16.45	29.73	9.82	24.31
-------	-------	------	-------

**i Show or explain your thinking.**

**5** Determine the greatest possible sum.

**expression:** \_\_\_\_\_

**answer:** \_\_\_\_\_

**6** Determine the least possible sum.

**expression:** \_\_\_\_\_

**answer:** \_\_\_\_\_

**7** Han rode his bike for 2.4 miles. Then he stopped for a break. After his break, he rode another 1.85 miles. How many miles did Han ride altogether?

**i Show your thinking.**

**answer:** \_\_\_\_\_

## Additional Practice

5.11

**1** Determine the difference:  $58.72 - 39.45$ .

- (A) 12.27      (B) 19.27      (C) 22.27      (D) 28.27

**2** Determine the difference:  $95.48 - 63.92$ .

- (A) 31.56      (B) 31.74      (C) 31.12      (D) 32.01

**For Problems 3 and 4, estimate and determine the difference using any strategy.**

**i** Show or explain your thinking.

**3**  $15.07 - 2.09$

estimate: \_\_\_\_\_

answer: \_\_\_\_\_

**4**  $14.53 - 7.68$

estimate: \_\_\_\_\_

answer: \_\_\_\_\_

Name \_\_\_\_\_ Date \_\_\_\_\_

- 5 Claire went biking on 2 different trails. The first trail was 7.42 miles long, and the second trail was 1.86 miles long. How much longer was the first trail than the second?

 Show your thinking.

answer: \_\_\_\_\_

- 6 Diego determined the difference between  $48.75 - 26.43$  using this strategy.

$$26.43 + 0.57 = 27$$

$$27 + 21.75 = 48.75$$

$$21.75 + 0.57 = 22.32$$

Explain why Diego's strategy works.

 Show your thinking.

# Additional Practice

5.12

For Problems 1 and 2, determine the sum or difference using the standard algorithm.

 Show your thinking.

**1**  $13.9 - 8.45$

**2**  $4 - 1.29$

answer: \_\_\_\_\_

answer: \_\_\_\_\_

**3** Which shows the correct calculations?

**(A)**

$$\begin{array}{r}
 13 \\
 23 \quad 15 \quad 16 \\
 34 \quad 5 \quad 6 \\
 - 17 \quad 8 \quad 9 \\
 \hline
 16 \quad 7 \quad 7
 \end{array}$$

**(B)**

$$\begin{array}{r}
 13 \quad 14 \\
 23 \quad 4 \quad 16 \\
 34 \quad 5 \quad 6 \\
 - 17 \quad 8 \quad 9 \\
 \hline
 16 \quad 6 \quad 7
 \end{array}$$

**(C)**

$$\begin{array}{r}
 12 \quad 14 \\
 23 \quad 4 \quad 16 \\
 34 \quad 5 \quad 6 \\
 - 17 \quad 8 \quad 9 \\
 \hline
 15 \quad 6 \quad 7
 \end{array}$$

**(D)**

$$\begin{array}{r}
 34 \quad 5 \quad 6 \\
 - 17 \quad 8 \quad 9 \\
 \hline
 23 \quad 3 \quad 3
 \end{array}$$

Name \_\_\_\_\_ Date \_\_\_\_\_

**i** Show or explain your thinking.

**4** The sum of 5.07 and 2.3 is 7.37. True or false?

answer: \_\_\_\_\_

**5** The sum of 6.8 and 3.25 is 9.05. True or false?

answer: \_\_\_\_\_

For Problems 6 and 7, determine the sum or difference using the standard algorithm.

**i** Show your thinking.

**6**  $18.4 - 9.27$

answer: \_\_\_\_\_

**7**  $1.25 + 7.6$

answer: \_\_\_\_\_

**Additional Practice****5.13**

Clare earned \$74.25 babysitting, and Han earned \$61.48 mowing lawns. Use this information for problems 1 and 2.

- 1 How much money did Clare and Han earn altogether?
- (A) \$135.63      (B) \$136.73      (C) \$135.53      (D) \$135.73
- 2 How much more money did Clare earn than Han?
- (A) \$11.73      (B) \$12.77      (C) \$12.83      (D) \$13.27

Priya bought a watermelon that weighed 5.75 pounds and a pineapple that weighed 3.4 pounds. Use this information for problems 3 and 4.

**i** Show your thinking.

- 3 The total weight of the watermelon and pineapple is 8.15 pounds. *True or false?*

answer: \_\_\_\_\_

- 4 The watermelon weighs 2.35 more pounds than the pineapple. *True or false?*

answer: \_\_\_\_\_

Name \_\_\_\_\_ Date \_\_\_\_\_

Diego found 3 different turtles at a wildlife sanctuary. The lengths of the turtles are shown in the table. Use the information for Problems 5–7.

Turtle	Length (inches)
Turtle #1	5.73
Turtle #2	3.92
Turtle #3	6.15

**i** Show your thinking.

**5** Order the lengths from *least* to *greatest*.

answer: \_\_\_\_\_

**6** How much *longer* is Turtle #3 than Turtle #2?

answer: \_\_\_\_\_

**7** What is the total length of all 3 turtles?

answer: \_\_\_\_\_

**Additional Practice****5.14**

Determine the value of each expression. You can use diagrams to represent your thinking if it helps.

 Show your thinking.

**1**  $4 \times 0.2$

answer: \_\_\_\_\_

---

**2**  $5 \times 0.03$

answer: \_\_\_\_\_

---

**3**  $3 \times 0.08$

answer: \_\_\_\_\_

**4** What is the product of 5 and 0.8?

**(A)** 40

**(B)** 0.40

**(C)** 4.0

**(D)** 0.004

Name \_\_\_\_\_ Date \_\_\_\_\_

5 Which does *not* represent the product of 0.4 and 2?

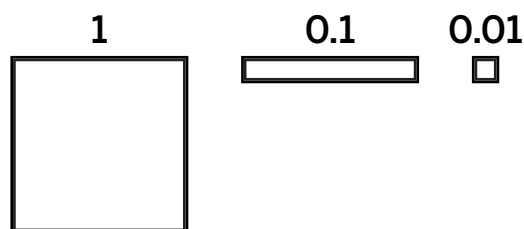
(A) 8 tenths

(B) 80 hundredths

(C) 0.8

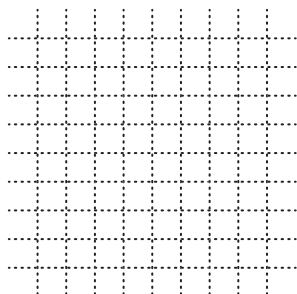
(D) 8 hundredths

For Problems 6–8, determine the value of the expression. You can use diagrams, like the ones shown, or the grid to represent your thinking if they are helpful.



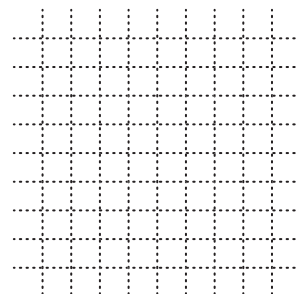
**i** Show your thinking.

6  $4 \times 0.25$



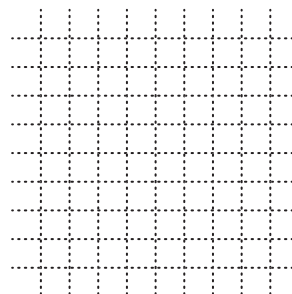
answer: \_\_\_\_\_

7  $3 \times 0.03$



answer: \_\_\_\_\_

8  $4 \times 0.2$



answer: \_\_\_\_\_

## Additional Practice

5.15

1 What is the product of  $7 \times 0.3$ ?

(A) 2.1

(B) 1.2

(C) 3.0

(D) 0.21

2 What is the product of  $5 \times 6.4$ ?

(A) 23

(B) 32

(C) 50

(D) 54

 Show your thinking.

3 Determine the product  $8 \times 2.9$  using the standard algorithm.

answer: \_\_\_\_\_

4 7 puppies each weigh 4.25 pounds. How much do the puppies weigh in all?

answer: \_\_\_\_\_

5 Diego found 15 dimes. How much money did Diego find?

answer: \_\_\_\_\_

Name \_\_\_\_\_ Date \_\_\_\_\_

- 6 Determine whether each representation is equivalent to  $7 \times 0.8$ . Place a check mark in the correct column.

Expression	Yes	No
$7 \times \frac{8}{10}$		
78 hundredths		
$7 \times \frac{80}{100}$		
56 hundredths		

- 7 Match each expression with its product.

**Expression**

**Product**

$5 \times 0.6$

0.45

$5 \times 1.08$

11

$5 \times 0.09$

3

$5 \times 2.2$

5.4

**Additional Practice****5.16****1** Which equation is true?

(A)  $0.3 \times 0.5 = \frac{15}{10}$

(B)  $0.4 \times 0.7 = \frac{28}{100}$

(C)  $0.6 \times 0.2 = 12 \times 0.1$

(D)  $0.9 \times 0.8 = 7.2$

**2** Which expressions are equivalent to  $0.7 \times 0.5$ ? Select *all* that apply.

(A)  $(7 \times 5) \times 0.01$

(B)  $(7 \times 5) \times 10$

(C)  $(0.7 \times 0.5) + 0.1$

(D)  $(7 \times 5) \times (0.1 \times 0.1)$

(E)  $(7 \times 5) \times 100$

(F)  $(7 \times 5) + (0.7 \times 0.5)$

**3** Which equations are true? Select *all* that apply.

(A)  $0.8 \times 0.7 = 0.56$

(B)  $0.5 \times 0.4 = 0.20$

(C)  $0.9 \times 0.3 = 2.7$

(D)  $0.6 \times 0.2 = 0.12$

(E)  $0.7 \times 0.8 = 5.6$

(F)  $0.4 \times 0.5 = 0.20$

**4** Choose 1 true equation from Problem 3 and show or explain how you know the equation is true.

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Name \_\_\_\_\_ Date \_\_\_\_\_

**5** Write two expressions you could use to evaluate  $0.7 \times 0.4$ .

**expression 1:** \_\_\_\_\_

**expression 2:** \_\_\_\_\_

**For Problems 6–8, determine whether each equation is true or false. Explain your thinking.**

**6**  $0.3 \times 0.3 = 0.9$

\_\_\_\_\_

**7**  $0.8 \times 0.5 = 0.40$

\_\_\_\_\_

**8**  $0.4 \times 0.4 = 0.016$

\_\_\_\_\_

# Additional Practice

5.17

**i** Show your thinking.

**1** Determine the product of the expression  $2.3 \times 1.5$ .

answer: \_\_\_\_\_

**2** Determine the product of  $1.2 \times 4.5$ .

answer: \_\_\_\_\_

**3** Which expression has a product of 2.16?

**(A)**  $0.9 \times 0.4$

**(B)**  $7.2 \times 0.3$

**(C)**  $0.9 \times 3.6$

**(D)**  $7.2 \times 3.6$

**4** Choose one of the incorrect expressions from Problem 3. Explain why the expression does not have a product of 2.16 using estimation or place value understanding.

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Name \_\_\_\_\_ Date \_\_\_\_\_

 **Show your thinking.**

**5** Determine the product of  $4.7 \times 2.5$ .

**answer:** \_\_\_\_\_

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**6** Han has a rectangular garden that measures 0.8 yards by 3.5 yards. If Han wants to cover the garden with mulch, how many square yards of mulch does he need?

**answer:** \_\_\_\_\_

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**7** Does  $4.6 \times 6.7$  equal  $(46 \times 67) \times 0.1$ ?

**Additional Practice****5.18**

- 1** Which expression is equivalent to  $6.8 \times 0.01$ ?  
(A)  $6.8 \div 10$     (B)  $6.8 \div 100$     (C)  $6.8 \times 100$     (D)  $6.8 \times 10$
- 2** Which expression is equivalent to  $9.2 \times 0.1$ ?  
(A)  $9.2 \div 100$     (B)  $9.2 \times 10$     (C)  $9.2 \div 10$     (D)  $9.2 \times 100$
- 3** The product of 62 and 25 is 1,550. Which equations are also true?  
Select *all* that apply.
- (A)  $0.62 \times 25 = 155.0$                       (B)  $6.2 \times 2.5 = 15.50$   
(C)  $62 \times 2.5 = 155.0$                       (D)  $62 \times 0.25 = 15.50$   
(E)  $6.2 \times 25 = 155.0$                       (F)  $6.2 \times 0.25 = 15.5$

**For Problems 4–7 determine the product.**

**i** Show your thinking.

**4**  $0.57 \times 83$

answer: \_\_\_\_\_

**5**  $47 \times 1.5$

answer: \_\_\_\_\_

Name \_\_\_\_\_ Date \_\_\_\_\_

 Show your thinking.

**6**  $32.5 \times 3.6$

**7**  $18.3 \times 5.2$

answer: \_\_\_\_\_

answer: \_\_\_\_\_

**8** Claire has \$350 in her savings account. She spends 0.01 of her total savings on a small gift. How much money did she spend?

answer: \_\_\_\_\_

**Additional Practice****5.19****i** Show your thinking.

- 1** A *large* dog weighs 5.6 times as much as a *small* dog. If the *small* dog weighs 9 pounds, how many *more* pounds does the *large* dog weigh than the *small* dog?

(A) 42.4    (B) 40.3    (C) 41.4    (D) 50.4

- 2** A water tank holds 7.3 times as much water as a small bucket. If the bucket holds 18 liters of water, how many *more* liters of water does the tank hold than the bucket?

(A) 112.2 liters    (B) 113.4 liters    (C) 131.4 liters    (D) 95.6 liters

- 3** A swimming pool holds 5.8 times as much water as a hot tub. If the hot tub holds 40 gallons of water, how many *more* gallons of water does the swimming pool hold than the hot tub?

answer: \_\_\_\_\_

- 4** A bakery sold 6.4 times as many muffins as a home-baker. If the home baker sold 25 muffins, how many muffins did they sell in all?

answer: \_\_\_\_\_

Name \_\_\_\_\_ Date \_\_\_\_\_

**i Show your thinking.**

**5** A notebook has 7.5 times as many pages as a sketchbook. If the sketchbook has 16 pages, how many more pages are in the notebook than the sketchbook?

**answer:** \_\_\_\_\_

**6** Jake bought vegetables for a family dinner. Use the clues to determine the total weight of the vegetables Jake bought in pounds.

- The carrots weigh 1.8 times as much as the potatoes.
- The tomatoes weigh 0.7 pound more than the potatoes.
- The potatoes weigh 2.5 pounds.
- The lettuce weighs 1.4 pounds less than the tomatoes.

**Additional Practice****5.20**

For Problems 1–5, match the expression with its quotient.

Expression	Quotient
1 $0.24 \div 4$	_____ 0.1
2 $0.08 \div 4$	_____ 0.4
3 $0.36 \div 4$	_____ 0.09
4 $0.4 \div 4$	_____ 0.06
5 $1.6 \div 4$	_____ 0.02

6 Which equations are true? Select *all* that apply.

(A)  $0.8 \div 2 = 0.4$

(B)  $0.36 \div 6 = 0.6$

(C)  $0.24 \div 3 = 0.08$

(D)  $0.4 \div 5 = 0.08$

(E)  $0.15 \div 3 = 0.5$

(F)  $0.12 \div 4 = 0.03$

For Problems 7 and 8, determine the quotient. Show or explain your thinking.

7  $0.72 \div 8$

 Show your thinking.

answer: \_\_\_\_\_

Name \_\_\_\_\_ Date \_\_\_\_\_

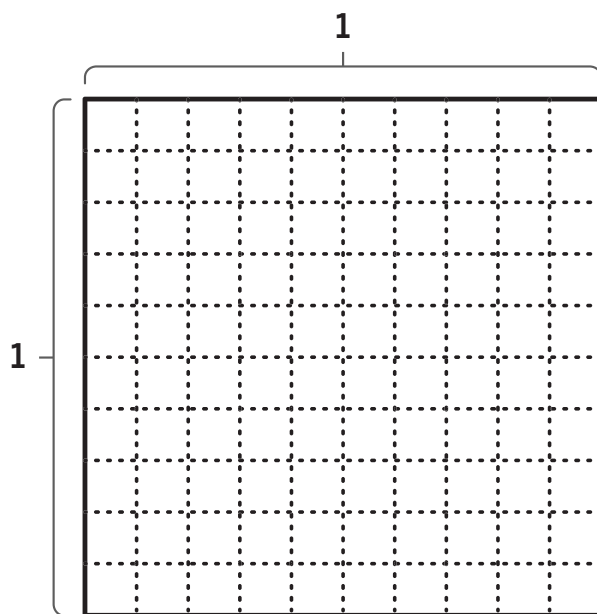
**8**  $0.21 \div 3$

**i** Show your thinking.

answer: \_\_\_\_\_

**9** Determine the quotient  $0.8 \div 4$ . Use the grid if it helps.

**i** Show your thinking.



answer: \_\_\_\_\_

## Additional Practice

5.21

1 Determine the quotient  $24 \div 0.6$ .

(A) 4

(B) 40

(C) 400

(D) 0.04

2 Determine the quotient  $8 \div 0.02$ .

(A) 400

(B) 0.4

(C) 4

(D) 40

3 Determine the quotient  $5 \div 0.01$ .

(A) 500

(B) 50

(C) 0.05

(D) 0.5

For Problems 4–7, determine the quotient.

 Show your thinking.

4  $20 \div 0.5$

answer: \_\_\_\_\_

5  $20 \div 0.05$

answer: \_\_\_\_\_

Name \_\_\_\_\_ Date \_\_\_\_\_

 Show your thinking.

**6**  $3 \div 0.5$

answer: \_\_\_\_\_

**7**  $3 \div 0.25$

answer: \_\_\_\_\_

**8** Diego says that there are 10 tenths in 1, so  $1 \div 0.1$  is 10. Do you agree? Explain your thinking.

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## Additional Practice

5.22

- 1** Han has 0.9 pounds of clay. He divides it equally between 3 portions. How many pounds of clay are in each portion?

**i** Show or explain your thinking.

answer: \_\_\_\_\_

- 2** Clare has 1.2 gallons of paint. She divides it equally between 6 jars. How many gallons of paint are in each jar?

**i** Show or explain your thinking.

answer: \_\_\_\_\_

- 3** Priya prepared 2.4 pounds of cookie dough. She divided the dough equally into 4 portions. How many pounds of dough were in each portion?

**i** Show or explain your thinking.

answer: \_\_\_\_\_

Name \_\_\_\_\_ Date \_\_\_\_\_

**4** Without evaluating, which comparison statements are true?  
Select *all* that apply.

**(A)**  $6 \div 0.1 > 6$

**(B)**  $0.5 \div 10 < 0.5$

**(C)**  $8 \div 0.01 < 8$

**(D)**  $0.03 \div 7 > 0.03$

**(E)**  $2.4 \div 0.2 > 2.4$

**(F)**  $0.6 \div 0.3 > 0.6$

**5** A scientist needs 0.01 gram of salt for an experiment. In the storage cabinet, he has 1 gram of salt. How many times more is the amount of salt he has than the amount of salt he needs?

 Show or explain your thinking.

answer: \_\_\_\_\_

**For Problems 6–8, determine the quotient. Explain how you know your quotient is reasonable**

 Show your thinking.

**6**  $3.6 \div 12$

answer: \_\_\_\_\_

**7**  $72 \div 0.8$

answer: \_\_\_\_\_

**Additional Practice****5.23**

For Problems 1–6, determine the value that makes the equation true.

1  $1.2 \div 0.1 = \underline{\hspace{2cm}}$

2  $0.5 \div \underline{\hspace{2cm}} = 5$

3  $\underline{\hspace{2cm}} \div 0.1 = 36$

4  $1.2 \div \underline{\hspace{2cm}} = 120$

5  $4.8 \div 0.01 = \underline{\hspace{2cm}}$

6  $0.36 \div \underline{\hspace{2cm}} = 0.36$

7 What is the value of  $0.72 \div 0.1$ ?

(A) 7.2

(B) 72

(C) 0.72

(D) 720

8 Which expressions are equal to 240? Select *all* that apply.

(A)  $24 \div 0.01$

(B)  $24 \div 0.1$

(C)  $2.4 \div 0.01$

(D)  $2.4 \div 0.1$

Name \_\_\_\_\_ Date \_\_\_\_\_

**For Problems 9 and 10, determine the quotient. Show your thinking.**

 Show your thinking.

**9**  $4.2 \div 0.1$

answer: \_\_\_\_\_

**10**  $4.2 \div 0.01$

answer: \_\_\_\_\_

**11** Determine whether each equation is *true* or *false*. Place a check mark in the correct column.

Equation	True	False
$5.8 \div 0.1 = 58$		
$0.72 \div 0.01 = 7.2$		
$4.5 \div 0.1 = 45$		
$3.6 \div 0.01 = 36$		
$7.9 \div 0.1 = 790$		

## Additional Practice

5.24

- 1 Determine the quotient of  $0.36 \div 4$

 Show your thinking.

answer: \_\_\_\_\_

- 2 Determine the quotient of  $9.6 \div 1.2$ .

 Show your thinking.

answer: \_\_\_\_\_

- 3 Clare is making clay animal sculptures. She uses 6 kilograms of clay to make 12 sculptures. She also uses 2.4 kilograms of clay to make accessories for the sculptures. How many kilograms of clay does she use to make 1 sculpture with accessories? Show or explain your thinking

 Show your thinking.

answer: \_\_\_\_\_

Name \_\_\_\_\_ Date \_\_\_\_\_

**4** Which equations are true? Select *all* that apply.

**(A)**  $0.25 \div 5 = 0.05$

**(B)**  $3.6 \div 0.6 = 6$

**(C)**  $8.4 \div 0.7 = 1.2$

**(D)**  $4.5 \div 0.1 = 45$

**(E)**  $7.2 \div 0.8 = 0.9$

**(F)**  $0.9 \div 0.3 = 3$

**5** Priya needs 3.15 yards of fabric to make 1 curtain. She plans to make 5 curtains. If she purchases 20 yards of fabric, how much fabric will Priya have left after making the 5 curtains? Show or explain your thinking.

**i** Show your thinking.

answer: \_\_\_\_\_

**6** A baker makes muffins 5 days per week. Each day, she uses 7.35 pounds of flour to make the muffins. If she starts with a 50-pound bag of flour, how many pounds of flour will she have left after making muffins for 5 days?

**i** Show your thinking.

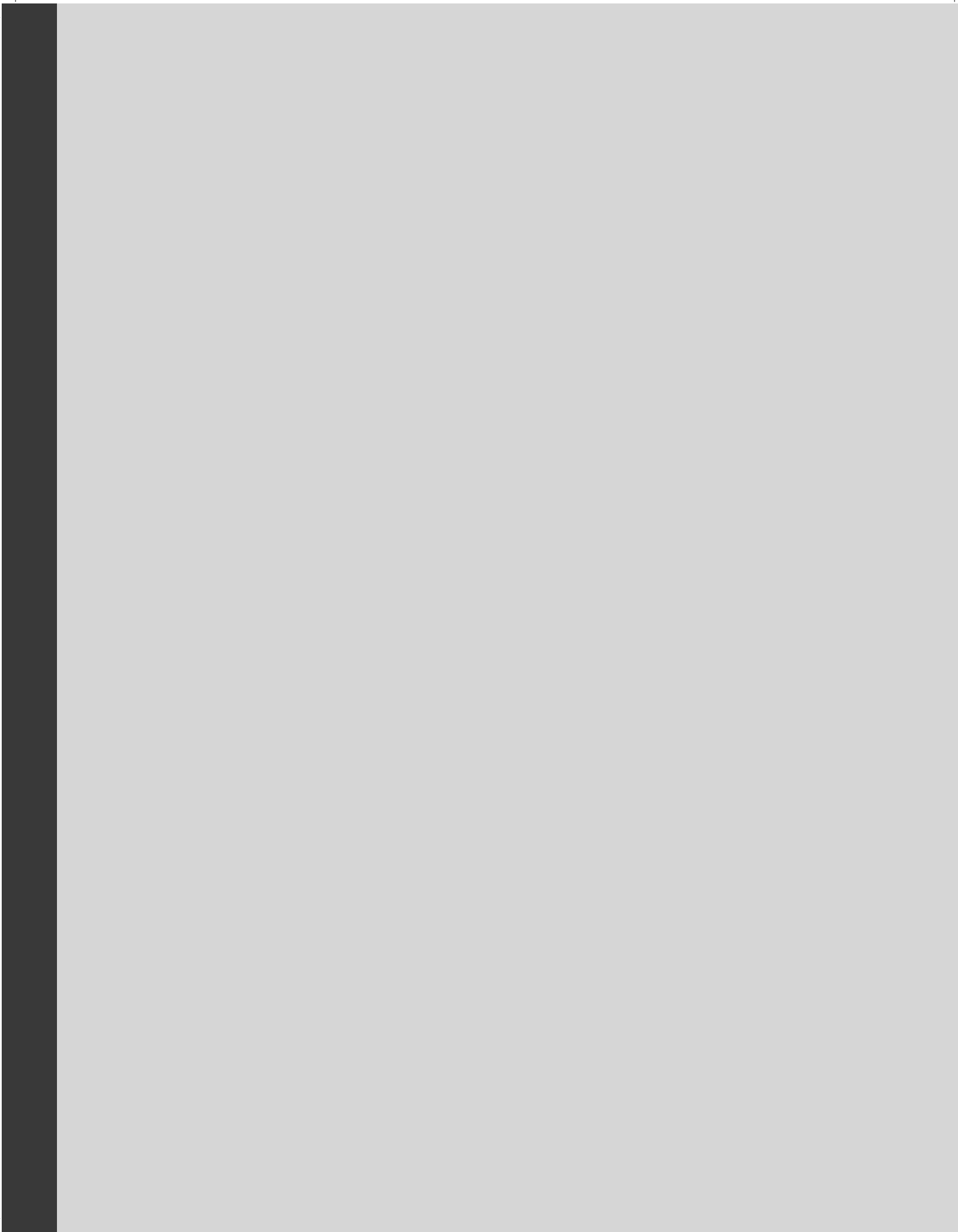
answer: \_\_\_\_\_

Grade 5 | **Unit 6**

# Additional Practice

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## Practice Problems



**Additional Practice****6.02****For Problems 1 and 2, represent each value in 2 ways.**

**1**  $10^9$

**Multiplication expression:** \_\_\_\_\_**Standard form:** \_\_\_\_\_

**2**  $10 \times 10 \times 10 \times 10 \times 10 \times 10$

**Standard form:** \_\_\_\_\_**Exponential form:** \_\_\_\_\_**3** Write 10,000,000 as a multiplication expression.

\_\_\_\_\_

**4** Write a number that is less than 10,000,000 in exponential form.

\_\_\_\_\_

**5** Select *all* the representations of 10,000.

**A**  $10 \times 10 \times 10$

**B**  $10 \times 10 \times 10 \times 10 \times 10$

**C**  $10^4$

**D**  $10^5$

**E**  $10 \times 10 \times 10 \times 10$

Name \_\_\_\_\_ Date \_\_\_\_\_

- 6 Complete the table by writing the exponential form, a multiplication expression, or the standard form for each power.

Exponential Form	Multiplication Expression	Standard Form
	$10 \times 10 \times 10 \times 10 \times 10 \times 10 \times 10 \times 10 \times 10$	
$10^5$		
	10	10

- 7 Which number is greater  $10^4$  or  $10^6$ ?

 Show your thinking.

answer: \_\_\_\_\_

**Additional Practice****6.03****For Problems 1–6, determine the product.**

**1**  $6 \times 7 \times 10^5 = ?$

\_\_\_\_\_

**2**  $10^6 \times 17 = ?$

\_\_\_\_\_

**3**  $10^3 \times 11 = ?$

\_\_\_\_\_

**4**  $9 \times 2 \times 10^8 = ?$

\_\_\_\_\_

**5**  $100 \times 10,000 = ?$

\_\_\_\_\_

**6**  $10^1 \times 720 = ?$

\_\_\_\_\_

**For Problems 7–8, write an equivalent expression with a power of 10 in exponential form.**

**7**  $50 \times 10 \times 100 = ?$

\_\_\_\_\_

**8**  $123 \times 10,000 = ?$

\_\_\_\_\_

**9** Which expressions have a product of 67,000? Select *all* that apply.

**A**  $67,000 \times 10^1$

**B**  $670 \times 10^2$

**C**  $67 \times 10^3$

**D**  $67 \times 10^5$

**E**  $6,700 \times 10^1$

Name \_\_\_\_\_ Date \_\_\_\_\_

For Problems 10–12, write an equivalent expression with a power of 10. Then represent the product as a number in standard form.

	Expression	Equivalent expression with a power of 10 in exponential form	Product in standard form
<b>10</b>	$20 \times 100,000$		
<b>11</b>	$600 \times 100$		
<b>12</b>	$70 \times 10 \times 100$		

**13** Which factors make the equation true? Select *all* that apply.

$$87 \times ? = 870,000,000$$

- (A)  $10^7$
- (B) 1,000,000
- (C) 100,000,000
- (D)  $10^6$
- (E) 10,000,000

**Additional Practice****6.04**

- 1** Which value makes the equation  $4.89 \times 10^3 = ?$
- (A) 489
  - (B) 4,890
  - (C) 48,900
  - (D) 4,890,000
- 2** Which value makes the equation  $1,250 \div 10^3 = ?$
- (A) 125
  - (B) 12.50
  - (C) 1.250
  - (D) 0.1250
- 3** Which values make the equation  $4.5 \times ? = 45,000$ ? Select *all* that apply.
- (A)  $10^3$
  - (B) 1,000
  - (C) 10,000
  - (D) 100
  - (E)  $10^4$

Name \_\_\_\_\_ Date \_\_\_\_\_

**For Problems 4–8, complete the equation to make it *true*.**

**4**  $8,002 \div 10^2$  \_\_\_\_\_

**5**  $8.4 \times$  \_\_\_\_\_  $= 84,000$

**6**  $9.678 \times 10^3 =$  \_\_\_\_\_

**7**  $8,750 \div$  \_\_\_\_\_  $= 875$

**8** \_\_\_\_\_  $\div 10^5 = 0.547$

**For Problems 9 and 10, circle the expression with the *greater* product.**

**9**  $9 \times 10^3$  or  $3 \times 10^2$

**10**  $6 \times 10^2$  or  $1 \times 10^8$

**Additional Practice****6.05**

For Problems 1–5, determine the product and the quotient.

	Product	Quotient
<b>1</b>	$7 \times 10^2 =$ _____	$7 \div 10^2 =$ _____
<b>2</b>	$45 \times 10^3 =$ _____	$45 \div 10^3 =$ _____
<b>3</b>	$0.34 \times 10^1 =$ _____	$0.34 \div 10^1 =$ _____
<b>4</b>	$2.854 \times 10^0 =$ _____	$2.854 \div 10^0 =$ _____
<b>5</b>	$989 \times 10^1 =$ _____	$989 \div 10^1 =$ _____

**6** Which statements are *true*? Select *all* that apply.

- (A)  $0.78 \times 10^4 = 7,800$
- (B)  $562 \div 10^2 = 56.2$
- (C)  $0.322 \div 10^1 = 32.2$
- (D)  $983 \times 10^3 = 983,000$
- (E)  $172.41 \div 10^3 = 1.7241$

Name \_\_\_\_\_ Date \_\_\_\_\_

**7** Han evaluated the expression  $4,703 \times 10^2$  and said, “The answer is 47,030 because  $10^2$  has 2 zeros. There is already 1 zero in 4,703, so I placed 1 more at the end so that there are now 2 zeros in the product.”

What is Han’s error? Explain your thinking and include the correct answer in your response.

 **Show your thinking.** \_\_\_\_\_

**answer:** \_\_\_\_\_

## Additional Practice

6.06

 Show your thinking.

- 1** Clare jogged 789 meters to her house. What distance did she jog in centimeters?

answer: \_\_\_\_\_

- 2** Han's family drove 361 kilometers to visit their family. What distance did they drive in meters?

answer: \_\_\_\_\_

- 3** Priya ran 15,000 meters last month. How many kilometers did Priya run?

answer: \_\_\_\_\_

Name \_\_\_\_\_ Date \_\_\_\_\_

**4** Diego swam 8.5 kilometers last week. How many meters did Diego swim?

**i** Show your thinking.

answer: \_\_\_\_\_

**5** Which statements are *true*? Select *all* that apply.

- A** 3.5 kilometers = 350 meters
- B** 2,000 millimeters = 2 meters
- C** 25 centimeters = 2.5 millimeters
- D** 7.6 kilometers = 7,600 meters
- E** 900 meters = 900,000 millimeters

## Additional Practice

6.07

- 1 A bald eagle and 4.5 kilograms equal 8,500 grams. What does the bald eagle weigh in kilograms?

 Show your thinking.

answer: \_\_\_\_\_

- 2 A cat and 200 grams together weigh 4.25 kilograms. What is the weight of the cat in milligrams?

 Show your thinking.

answer: \_\_\_\_\_

Name \_\_\_\_\_ Date \_\_\_\_\_

- 3** A laptop and 1,200 grams together weigh 3.4 kilograms. What is the weight of the laptop in kilograms?

**i** Show your thinking.

answer: \_\_\_\_\_

- 4** Which *three* amounts would have a sum of 9,900 grams?

- (A) 100,000 milligrams
- (B) 11 kilograms
- (C) 2,800 grams
- (D) 7 kilograms
- (E) 5.87 kilograms

- 5** Which *three* amounts would have a sum of 13,000 grams?

- (A) 15 kilograms
- (B) 5,200 grams
- (C) 10,000 milligrams
- (D) 4 kilograms
- (E) 3.8 kilograms

**Additional Practice****6.08**

**1** A gardener is preparing his soil for planting. He combines the following amounts of liquid fertilizers into his soil.

- 3 liters of nutrients
- 0.8 liters of water
- 600 milliliters of growth enhancer
- 1,500 milliliters of plant food

How many total liters of liquid fertilizer does he use for the soil?

**(A)** 5.0 liters

**(B)** 5.5 liters

**(C)** 5.9 liters

**(D)** 6.5 liters

**2** A chef is preparing a large batch of soup. She uses the following amounts of ingredients:

- 3.2 liters of vegetable broth
- 1,000 milliliters of tomato sauce
- 1.5 liters of water
- 500 milliliters of cream

How many total liters does the chef use to make the soup?

**(A)** 5.5 liters

**(B)** 6.2 liters

**(C)** 6.5 liters

**(D)** 7.0 liters

Name \_\_\_\_\_ Date \_\_\_\_\_

Use what you know about measurement conversions to solve Problems 3–5.

 Show your thinking.

**3** Diego eats 6 bowls of cereal each week. Each bowl contains 180 milliliters of milk. How many liters of milk does Diego use each week?

answer: \_\_\_\_\_

**4** Clare has a jug of lemonade. After she poured 250 milliliters of lemonade into each of the 6 glasses, there were 700 milliliters left in the jug. How many liters of lemonade were originally in the jug?

answer: \_\_\_\_\_

**5** One lap of a swimming pool is 50 meters long. A swimmer swims 30 laps. How many kilometers did they swim?

answer: \_\_\_\_\_

**Additional Practice****6.09**

- 1** A football field is 100 yards long. If Diego wants to run at least 1 mile, how many times should he run the entire length of the football field?

**i** Show your thinking.

answer: \_\_\_\_\_

- 2** Which length is the *longest*?

**(A)** 3,000 inches

**(B)** 120 feet

**(C)** 40 yards

**(D)** 2 miles

- 3** Which length is the *shortest*?

**(A)** 2,500 inches

**(B)** 60 feet

**(C)** 15 yards

**(D)**  $\frac{1}{2}$  mile

Name \_\_\_\_\_ Date \_\_\_\_\_

**4** Order the lengths from *least* to *greatest*.

Lengths				
$\frac{1}{2}$ mile	1,200 inches	100 yards	5 feet	3 miles

 Show your thinking.

\_\_\_\_\_ , \_\_\_\_\_ , \_\_\_\_\_ , \_\_\_\_\_ , \_\_\_\_\_  
**least**

**greatest**

**Additional Practice****6.10**

- 1** A swimming pool requires a total of 120 gallons, 15 quarts, and 10 pints of water to fill completely. How many gallons of water does the pool require?

**i** Show your thinking.

answer: \_\_\_\_\_

- 2** Which size container has the *greatest* capacity?

(A)  $6\frac{1}{4}$  quarts

(B) 36 pints

(C) 24 cups

(D) 10 gallons

- 3** Which size container has the *least* capacity?

(A) 6 gallons

(B) 32 cups

(C) 50 pints

(D)  $4\frac{1}{2}$  quarts

Name \_\_\_\_\_ Date \_\_\_\_\_

Use the information in the chart to solve Problems 4 and 5.

Containers		
A: 12 quarts	B: 25 cups	C: 15 pints

4 Which weighs more – 8 containers of A or 11 containers of C?

 Show your thinking.

answer: \_\_\_\_\_

5 How many full containers of B does Han need to have 50 gallons?

 Show your thinking.

answer: \_\_\_\_\_

## Additional Practice

6.11

The table shows the weights of 3 animals. Use the table for Problems 1–3.

<b>Animal</b>	Rabbit	Tiger	Hamster
<b>Weight</b>	2 pounds	0.25 tons	6 ounces

- 1** How much do 60 hamsters weigh, in pounds?

**i** Show your thinking.

answer: \_\_\_\_\_

- 2** How many rabbits will it take to weigh *more* than 1 tiger?

**i** Show your thinking.

answer: \_\_\_\_\_

Name \_\_\_\_\_ Date \_\_\_\_\_

**3** Which weighs more: 1 tiger, or 150 rabbits and 500 hamsters together?

**i** Show your thinking.

answer: \_\_\_\_\_

**4** Use the animal facts to determine which statements are *true*.  
Select *all* that apply.

- A zebra weighs 500 pounds
  - A giraffe weighs 1,800 pounds
  - An elephant weighs 6,000 pounds
- (A) 1 giraffe weighs more than 2 zebras
- (B) 2 elephants weigh more than 5 giraffes
- (C) 4 zebras weigh more than 1 elephant
- (D) 1 zebra weighs the same as 1 giraffe and 1 elephant combined
- (E) 2 giraffes weigh more than 6 zebras

**Additional Practice****6.12**

- 1** A cat drinks  $\frac{2}{3}$  liters of water in the morning and  $\frac{2}{6}$  liter of water in the evening. How many liters of water does the cat drink in total?

 Show your thinking.

answer: \_\_\_\_\_

- 2** A gardener has two rose bushes in her garden. One rose bush is  $\frac{7}{10}$  feet tall, and the other is  $\frac{4}{5}$  feet tall. How much taller is the second rose bush than the first?

 Show your thinking.

answer: \_\_\_\_\_

Name \_\_\_\_\_ Date \_\_\_\_\_

**3** Han is making a fruit salad. He adds  $\frac{1}{2}$  cups of strawberries and then decides to add another  $\frac{1}{4}$  cups of strawberries. How many cups of strawberries has he added altogether?

(A)  $\frac{3}{4}$  cups

(B)  $\frac{2}{6}$  cups

(C)  $\frac{2}{5}$  cups

(D)  $\frac{2}{3}$  cups

**4** Priya and her friend plan to bike  $\frac{7}{8}$  miles. They have already biked  $\frac{1}{4}$  miles. How many *more* miles do they have to bike until they complete the ride?

(A)  $\frac{3}{4}$  miles

(B)  $\frac{1}{2}$  miles

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

(D)  $\frac{5}{8}$  miles

(E)  $\frac{3}{8}$  miles

**Additional Practice****6.13**

For Problems 1 and 2, evaluate the expression.

**1**  $\frac{3}{9} + \frac{2}{3}$

 Show your thinking. \_\_\_\_\_

answer: \_\_\_\_\_

**2**  $\frac{3}{4} - \frac{2}{12}$

 Show your thinking. \_\_\_\_\_

answer: \_\_\_\_\_

Name \_\_\_\_\_ Date \_\_\_\_\_

**3** Which statements are *true* about the expression  $\frac{3}{4} + \frac{2}{5}$ ?

Select *all* that apply.

- (A) The sum of the expression is *greater* than  $\frac{1}{2}$ .
- (B) The sum of the expression is *greater* than 1.
- (C) 20 is a common denominator of  $\frac{3}{4}$  and  $\frac{2}{5}$ .
- (D) The value of the expression is  $\frac{24}{20}$ .

**4** Which statements are *true* about the expression  $\frac{5}{6} - \frac{3}{4}$ ? Select *all* that apply.

- (A) The difference of the expression is *greater* than  $\frac{1}{2}$ .
- (B) The difference of the expression is *less* than  $\frac{1}{2}$ .
- (C) 6 is a common denominator of  $\frac{5}{6}$  and  $\frac{3}{4}$ .
- (D) The value of the expression is  $\frac{1}{12}$ .

**5** Diego picked  $\frac{3}{5}$  baskets of strawberries. His friend picked  $\frac{2}{3}$  baskets of blueberries. How many baskets of berries did they pick altogether?

**i** Show your thinking.


answer: \_\_\_\_\_

## Additional Practice

6.14

For Problems 1–3, evaluate the expression.

1  $\frac{3}{7} + \frac{4}{9}$

 Show your thinking.

answer: \_\_\_\_\_

2  $\frac{5}{12} - \frac{1}{4}$

 Show your thinking.

answer: \_\_\_\_\_

Name \_\_\_\_\_ Date \_\_\_\_\_

3  $\frac{7}{8} - \frac{2}{5}$

 Show your thinking.

answer: \_\_\_\_\_

4 Which numbers could be used as a common denominator when adding or subtracting  $\frac{5}{6}$  and  $\frac{3}{4}$ ? Select *all* that apply.

(A) 6

(B) 8

(C) 12

(D) 18

(E) 24

(F) 36

5 Which common denominator from Problem 4 would you use to determine the sum or the difference between  $\frac{5}{6}$  and  $\frac{3}{4}$ ? Explain your thinking.

 Show your thinking.

answer: \_\_\_\_\_

## Additional Practice

6.15

- 1 Han uses  $3\frac{1}{4}$  cups of flour and  $2\frac{2}{3}$  cups of sugar for his baking project. How many cups of ingredients does Han use in total?

 Show your thinking.

answer: \_\_\_\_\_

- 2 Clare mixes  $4\frac{1}{2}$  liters of blue dye and  $3\frac{3}{4}$  liters of green dye to create a new color. How many liters of dye will Clare have in total?

 Show your thinking.

answer: \_\_\_\_\_

Name \_\_\_\_\_ Date \_\_\_\_\_

- 3** Priya mixes  $7\frac{1}{4}$  cups of flour and  $4\frac{2}{3}$  cups of sugar for her cookie dough recipe. How many cups of ingredients did Priya add in total?

**i** Show your thinking.

answer: \_\_\_\_\_

- 4** What is the sum of  $4\frac{2}{7} + 5\frac{3}{4}$ ? Select *all* that apply.

(A)  $9\frac{5}{28}$

(B)  $9\frac{17}{28}$

(C)  $9\frac{29}{28}$

(D)  $10\frac{5}{28}$

(E)  $10\frac{1}{28}$

## Additional Practice

6.16

- 1 Clare adds  $3\frac{4}{5}$  pounds of grapes and  $2\frac{1}{4}$  pounds of oranges to her basket. About how many *more* pounds of grapes than oranges are there? Explain your thinking.

 Show your thinking.

answer: \_\_\_\_\_

- 2 Han is making slime and uses  $5\frac{3}{4}$  cups of glue and  $2\frac{2}{3}$  cups of baking soda. How much *more* glue did Han use than baking soda?

 Show your thinking.

answer: \_\_\_\_\_

Name \_\_\_\_\_ Date \_\_\_\_\_

- 3** Diego is planting a garden. He uses  $7\frac{7}{8}$  pounds of soil and  $4\frac{3}{4}$  pounds of fertilizer. How much more soil did *Joe* use than fertilizer?

**i** Show your thinking.

answer: \_\_\_\_\_

- 4** What is the difference of  $9\frac{1}{2} - 4\frac{1}{3}$ . Select *all* that apply.

(A)  $5\frac{1}{3}$

(B)  $13\frac{2}{6}$

(C)  $\frac{31}{6}$

(D)  $13\frac{5}{6}$

(E)  $5\frac{1}{6}$

**Additional Practice****6.17**

For problems 1 and 2, evaluate the expression.

 Show your thinking.

**1**  $3\frac{4}{5} + 2\frac{1}{4} + \frac{1}{2}$

answer: \_\_\_\_\_

**2**  $7\frac{1}{3} + 4\frac{5}{6} - \frac{7}{12}$

answer: \_\_\_\_\_

Name \_\_\_\_\_ Date \_\_\_\_\_

- 3** Amy bought  $4\frac{1}{8}$  pounds of apples, and John bought  $3\frac{2}{3}$  pounds of apples. They later found that  $\frac{4}{6}$  pounds of apples were rotten. How many pounds of apples were not rotten?

 Show your thinking.

answer: \_\_\_\_\_

- 4** Which number is *not* a common denominator of all the mixed numbers in the expression  $9\frac{1}{2} - 4\frac{1}{3} + 5\frac{4}{15}$ ? Select *all* that apply.

- (A) 15
- (B) 30
- (C) 45
- (D) 60
- (E) 6

**Additional Practice****6.18**

Several baseball players were surveyed about how many hours a week they practice. The results are shown in the table. Use the information for Problem 1.

$3\frac{3}{4}$	3	$2\frac{3}{4}$	$1\frac{3}{4}$	$3\frac{1}{4}$	$2\frac{2}{4}$
$3\frac{4}{8}$	$2\frac{1}{4}$	2	$3\frac{1}{4}$	$3\frac{2}{8}$	$2\frac{3}{4}$
$2\frac{3}{4}$	$3\frac{1}{4}$	3	2	$3\frac{3}{4}$	$3\frac{4}{8}$

- 1** Use the data points in the table to create a line plot to represent the number of hours of practice in a week. Be sure to include a title and label.

 Show your thinking.

answer: \_\_\_\_\_

Name \_\_\_\_\_ Date \_\_\_\_\_

**Use the information from the line plot you created in Problem 1 for Problems 2–5.**

**2** How many baseball players completed the survey?

\_\_\_\_\_

**3** What fraction of baseball players practiced *less than*  $2\frac{1}{2}$  hours?

\_\_\_\_\_

**4** What fraction of baseball players practiced at *least*  $3\frac{1}{4}$  hours?

\_\_\_\_\_

**5** What is the difference between the *greatest* number of hours practiced and the *least* number of hours practiced?

 **Show your thinking.** \_\_\_\_\_

**answer:** \_\_\_\_\_

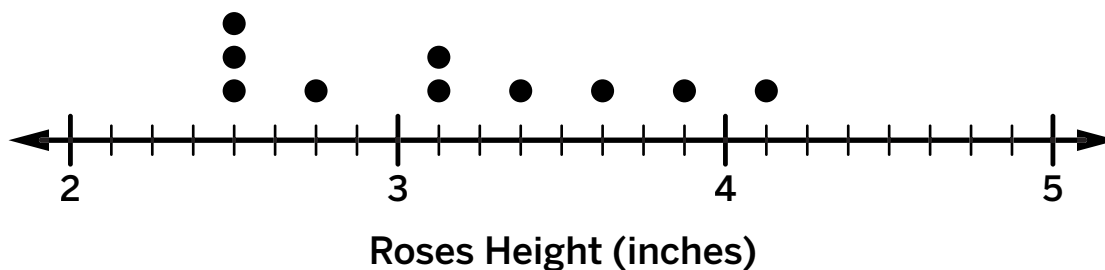
# Additional Practice

6.19

**1** Dan is making a line plot representing the height of the roses that his class planted. Use the information to complete the line plot.

- There are 12 roses planted.
- The *tallest* rose plant is  $2\frac{1}{2}$  inches taller than the *shortest* rose plant.
- There are 4 rose plants of the *shortest* height.

### Growing Roses



Use the information from the line plot you completed in Problem 1 for Problems 2–3.

**2** What fraction of rose plants are *taller* than 3 inches?

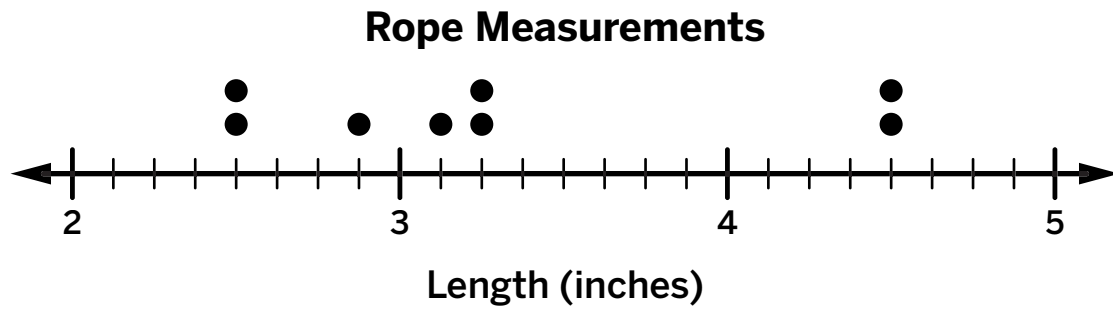
\_\_\_\_\_

**3** What fraction of rose plants are at *least*  $3\frac{1}{2}$  inches tall?

\_\_\_\_\_

Name \_\_\_\_\_ Date \_\_\_\_\_

Use the information from the line plot for Problems 4 and 5.



**4** Is the total length of the rope *greater than* or *less than* 1 yard?

**i** Show your thinking. \_\_\_\_\_

answer: \_\_\_\_\_

**5** How many inches longer is the *longest* rope than the *shortest* rope?

**i** Show your thinking. \_\_\_\_\_

answer: \_\_\_\_\_

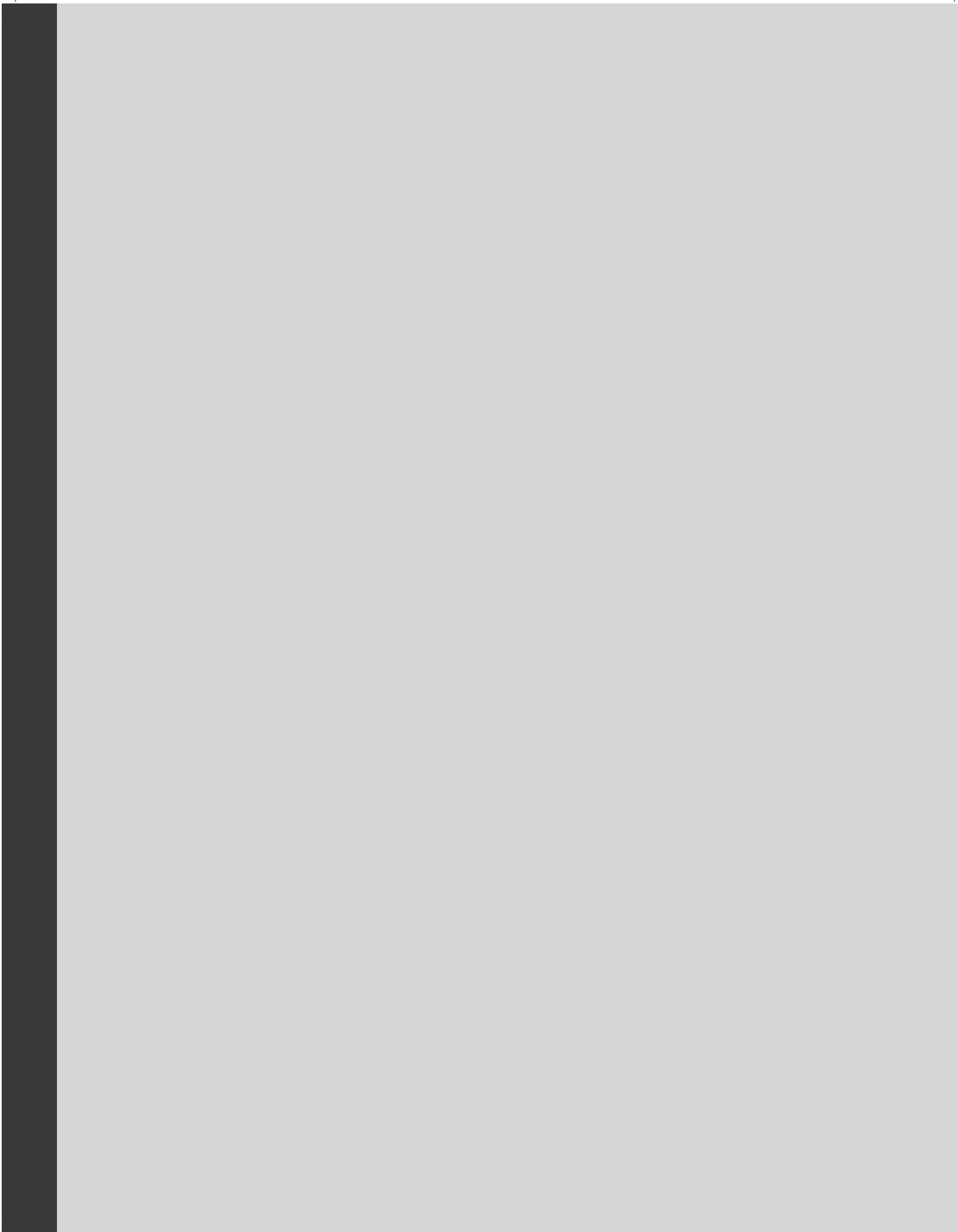
Grade 5

Unit 7

# Additional Practice

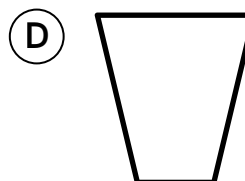
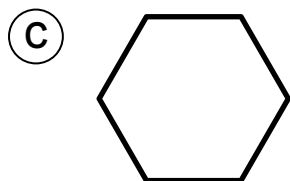
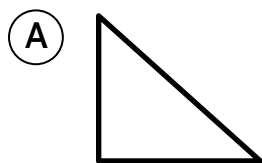
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## Practice Problems



**Additional Practice****7.02**

**1** Which figures are quadrilaterals? Select *all* that apply.



**For Problems 2 and 3, select *all* the quadrilaterals that fit the clue.**

**2** I have 4 right angles.

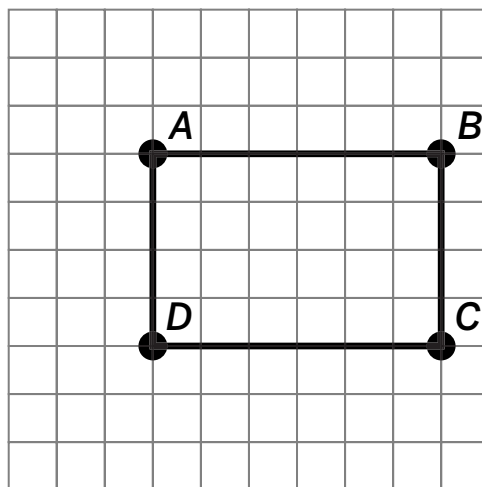
- (A)** square
- (B)** rhombus
- (C)** rectangle
- (D)** parallelogram

**3** All my sides are not equal in length.

- (A)** square
- (B)** rhombus
- (C)** rectangle
- (D)** parallelogram

Name \_\_\_\_\_ Date \_\_\_\_\_

Consider the figure for Problems 4–7. Determine whether each statement is *true* or *false*. Explain your thinking.



4 The figure is a square.

---

---

5 The figure is a rectangle.

---

---

6 The figure is a parallelogram.

---

---

7 The figure is a rhombus.

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---

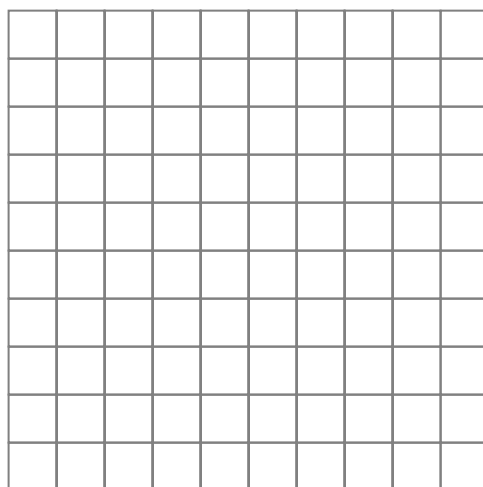
# Additional Practice

7.03

**1** Draw and label Shapes A and B on the grid.

- Shape A is a parallelogram and a trapezoid.
- Shape B is a rectangle, but it is *not* a square.

 Draw

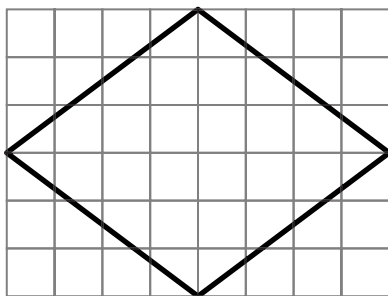


**2** Determine whether each statement is *true* or *false*. Place a check mark in the correct column.

Statement	True	False
All trapezoids are parallelograms.		
A parallelogram has 1 set of parallel sides.		
A trapezoid has 1 set of parallel sides.		

Name \_\_\_\_\_ Date \_\_\_\_\_

Consider the shape for Problems 3–6. Determine whether each statement is *true* or *false*. Explain your thinking.



**3** The shape is a square.

---

---

**4** The shape is a trapezoid.

---

---

**5** The shape is not a rhombus.

---

---

**6** The shape is a rectangle.

---

---

# Additional Practice

7.04

For Problems 1-5, determine whether the statement is *true* or *false*.

1 A rectangle is always a rhombus. \_\_\_\_\_

2 A square is always a rhombus. \_\_\_\_\_

3 All squares are rectangles. \_\_\_\_\_

4 A rhombus is always a parallelogram. \_\_\_\_\_

5 A trapezoid is never a square. \_\_\_\_\_

6 Choose 1 true statement and 1 false statement from Problems 1-5 and explain your thinking.

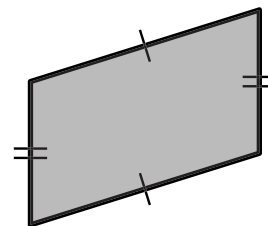
true: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

false: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Name \_\_\_\_\_ Date \_\_\_\_\_

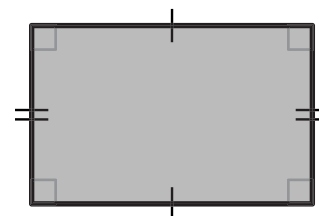
7 Name the figure. Select *all* that apply.

- (A) square
- (B) rhombus
- (C) parallelogram
- (D) trapezoid
- (E) quadrilateral
- (F) rectangle



8 Name the figure. Select *all* that apply.

- (A) square
- (B) rhombus
- (C) parallelogram
- (D) trapezoid
- (E) quadrilateral
- (F) rectangle



Complete each statement with *always*, *sometimes*, or *never* to make it true.

9 A rectangle is \_\_\_\_\_ a square.

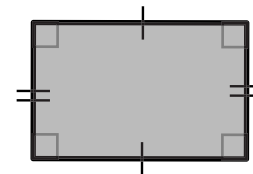
10 A rhombus is \_\_\_\_\_ a parallelogram.

## Additional Practice

7.05

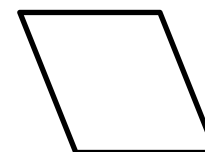
1 Name the figure with its most specific name.

- (A) rhombus
- (B) rectangle
- (C) quadrilateral
- (D) square
- (E) trapezoid
- (F) parallelogram



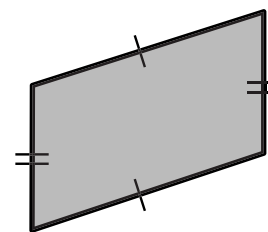
2 Name the figure with its most specific name.

- (A) rhombus
- (B) rectangle
- (C) quadrilateral
- (D) square
- (E) trapezoid
- (F) parallelogram



3 Name the figure with its most specific name.

- (A) rhombus
- (B) rectangle
- (C) quadrilateral
- (D) square
- (E) trapezoid
- (F) parallelogram



Name \_\_\_\_\_ Date \_\_\_\_\_

- 4 Choose 1 figure from Problems 1-3. Explain how you chose its most specific name using the hierarchy of quadrilaterals.

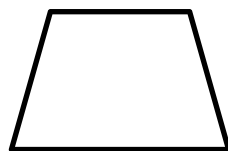
problem: \_\_\_\_\_

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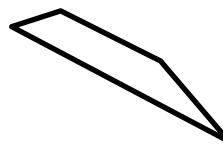
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- 5 Which figure does not belong?

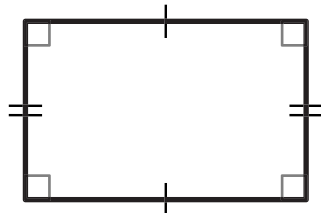
(A)



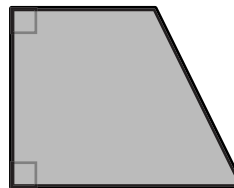
(B)



(C)



(D)



- 6 Explain why the figure you chose in Problem 5 does *not* belong.

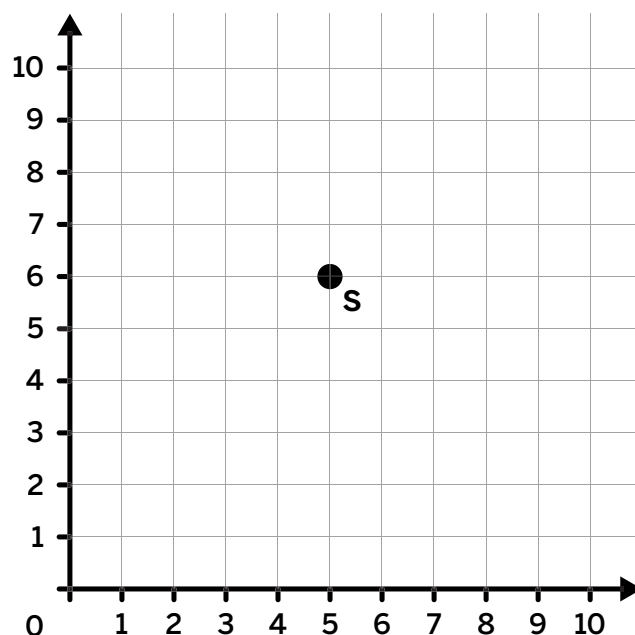
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# Additional Practice

7.06

Use the coordinate grid to complete Problems 1–3.



**1** Describe the location of point S in 2 different ways.

---



---

**2** Plot and label the points on the coordinate grid according to the description.

Point	Description
<i>E</i>	4 units to the left of point S
<i>F</i>	4 units right, 2 units up
<i>G</i>	(1, 3)
<i>H</i>	9 units right, 8 units up

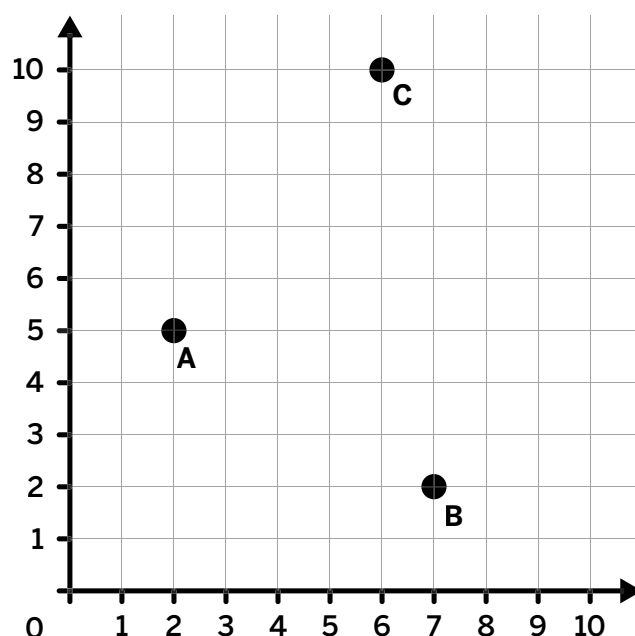
Name \_\_\_\_\_ Date \_\_\_\_\_

- 3** Han says, "Point  $E$  is located near 6." Rewrite his statement to more precisely describe the location of point  $E$ .

---

---

For Problems 4–6, describe the location of the point. Be as precise as possible.



- 4** point  $A$  \_\_\_\_\_

- 5** point  $B$  \_\_\_\_\_

- 6** point  $C$  \_\_\_\_\_

- 7** Describe how you could plot the point  $(3, 7)$  on a coordinate grid.

---

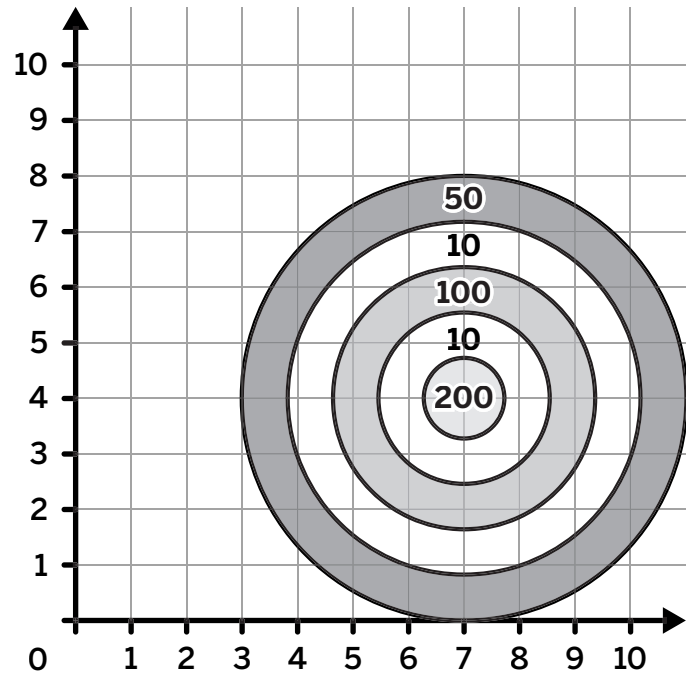
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# Additional Practice

7.07

- 1 Diego is aiming for a total score of 500 using 4 darts. Write 4 ordered pairs he needs to aim for to get a total of 500.

Ordered pairs



Use the coordinate grid for Problems 2 and 3.

- 2 Create a design on the coordinate grid with at least 10 points.
- 3 List *all* the ordered pairs to represent the locations of your points.

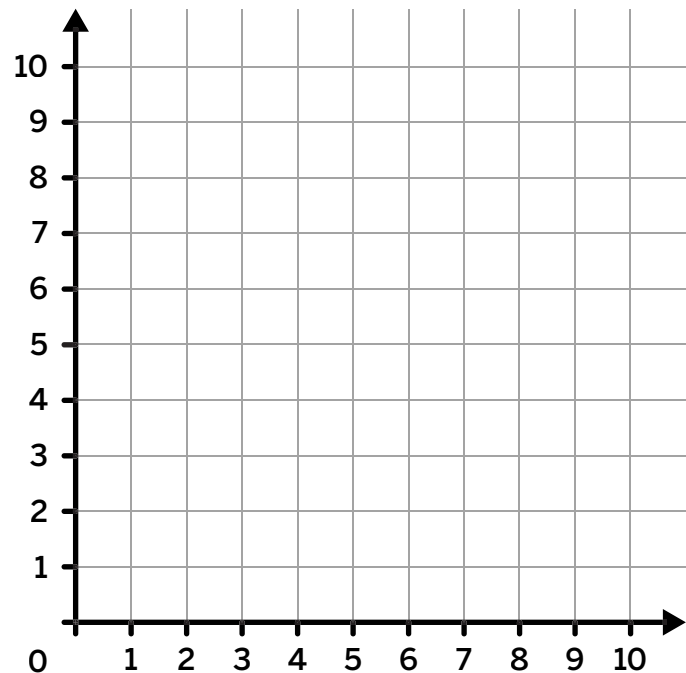
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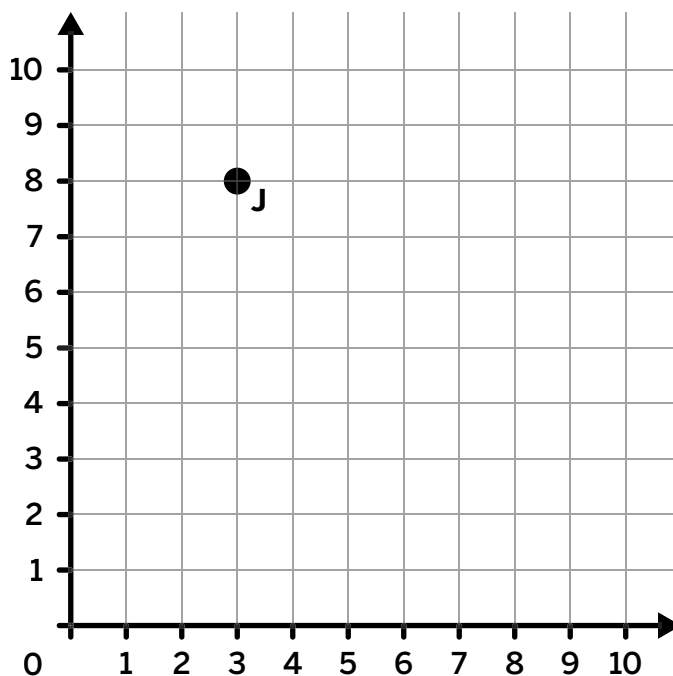


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Name \_\_\_\_\_ Date \_\_\_\_\_

Use the coordinate grid for Problems 4–6.



4 What are the coordinates of point  $J$ ?

\_\_\_\_\_

5 Plot and label point  $K$  (8, 2) and point  $L$  (2, 4).

6 Describe how you could plot the point (7, 9) on a coordinate grid.

\_\_\_\_\_

\_\_\_\_\_

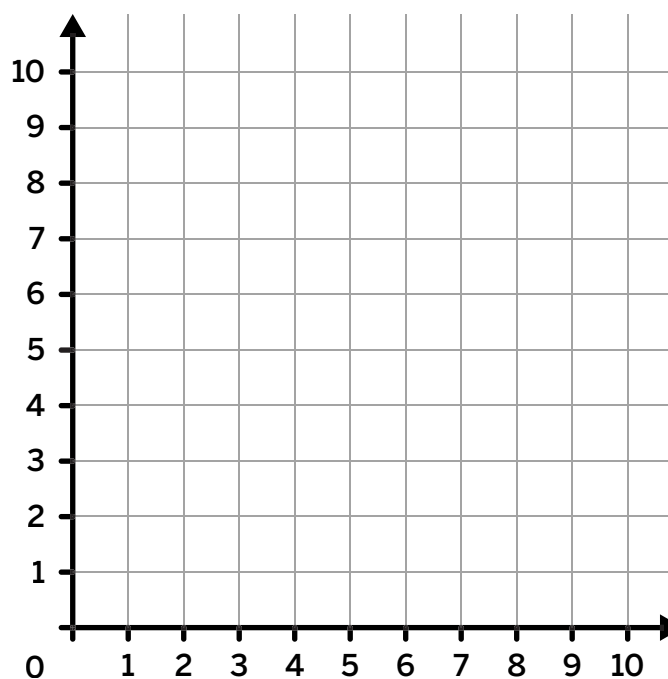
# Additional Practice

7.08

Use the coordinate grid for Problems 1–3.

- 1 Plot and label the points on the coordinate grid.

Point	Ordered pair
A	(2, 3)
B	(3, 3)
C	(4, 3)
D	(5, 3)



- 2 What do you notice about the points?

---

- 3 If this pattern continued, would a point be located at (3, 6)? Explain your thinking.

---



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Name \_\_\_\_\_ Date \_\_\_\_\_

**4** Fill in the blanks with 5 different numbers between 0 and 10 and plot the points on the coordinate grid.

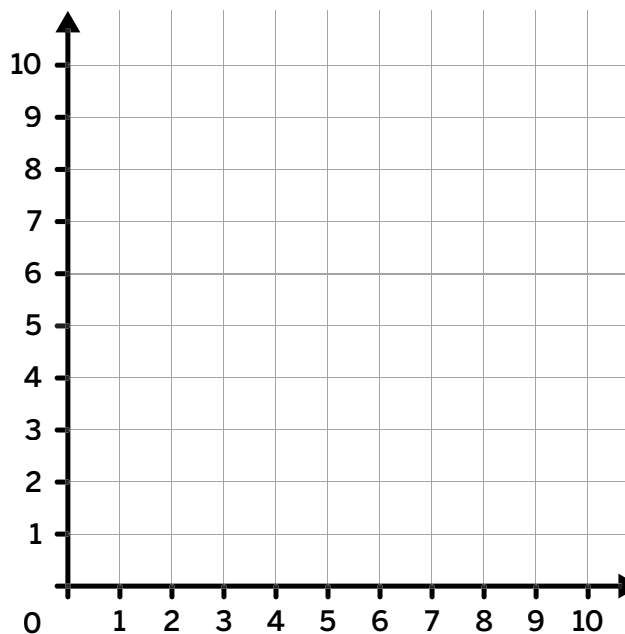
( \_\_\_\_\_, 0)

( \_\_\_\_\_, 0)

( \_\_\_\_\_, 0)

( \_\_\_\_\_, 0)

( \_\_\_\_\_, 0)



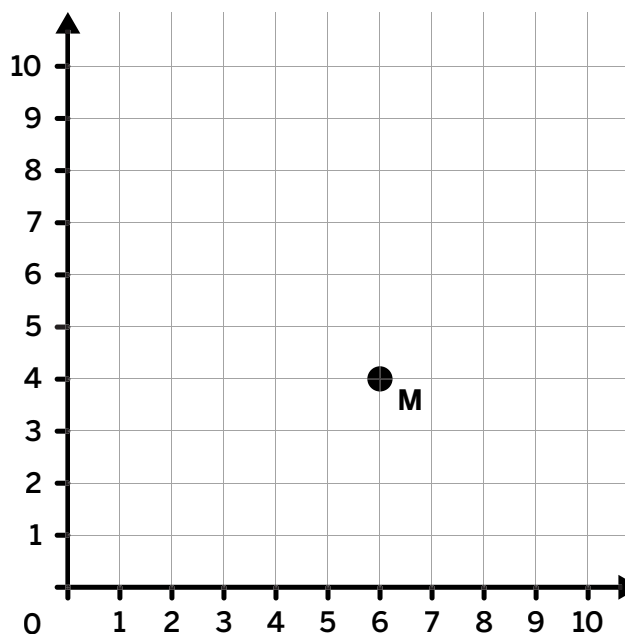
**5** Describe the location of point *M* in 2 different ways.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_



# Additional Practice

7.09

1 Write the first 5 numbers for each rule.

**Rule 1:** Start with 0 and keep adding 4.

**Rule 2:** Start with 0 and keep adding 2.

Rule 1					
Rule 2					

2 Describe the relationship between corresponding terms for the 2 rules in Problem 1.

---



---

3 Write the first 10 numbers for each rule.

**Rule 1:** Start with 0 and keep adding 3.

**Rule 2:** Start with 0 and keep adding 6.

Rule 1										
Rule 2										

Use the table in Problem 3 for Problems 4 and 5.

4 Describe the relationship between corresponding terms for the 2 rules.

---



---

Name \_\_\_\_\_ Date \_\_\_\_\_

- 5 If the patterns from Problem 3 continue, what number will be the corresponding term for Rule 1 when the number for Rule 2 is 96.

\_\_\_\_\_

- 6 The table shows 2 patterns generated from 2 rules. Describe the relationship between corresponding terms for the 2 rules using multiplication.

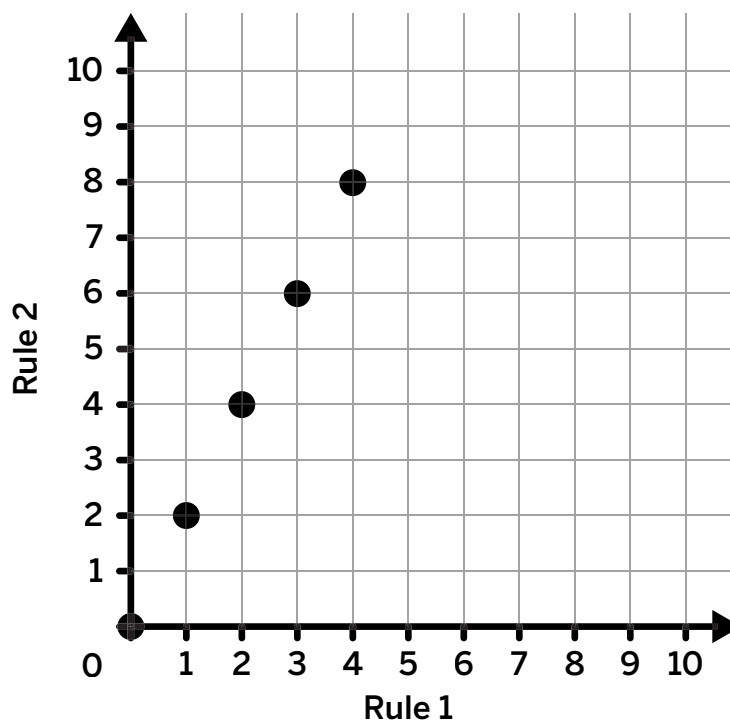
<b>Rule 1</b>	0	8	16	24	32
<b>Rule 2</b>	0	2	4	6	8

\_\_\_\_\_  
\_\_\_\_\_

# Additional Practice

7.10

The graph shows the first 5 points that represent 2 patterns generated from 2 different rules. Use the graph for Problems 1–3.



1 Complete the table using the coordinates from the graph.

Rule 1					
Rule 2					

Name \_\_\_\_\_ Date \_\_\_\_\_

**For problems 2 and 3, decide whether each statement about the graph is true or false. For each false statement, rewrite it so that it is true.**

- 2** Each number in Rule 2 is  $\frac{1}{2}$  the corresponding term in Rule 1.

---

---

- 3** If the patterns continue, the point (40, 20) will be on the graph.

---

---

- 4** The table shows 2 rules. Which statement is true based on the table?

<b>Rule 1</b>	0	7	14	21	28	35
<b>Rule 2</b>	0	3	6	9	12	15

- (A) Each term in Rule 1 is 2 times the corresponding term in Rule 2.
- (B) Each term in Rule 1 is  $\frac{1}{2}$  the corresponding term in Rule 2.
- (C) Each term in Rule 2 is  $\frac{3}{7}$  the corresponding term in Rule 1.
- (D) Each term in Rule 2 is  $\frac{7}{3}$  the corresponding term in Rule 1.

# Additional Practice

7.11

The points on the graph show Clare's and Priya's results from shooting free throws. Use the graph for Problems 1 and 2.



**1** Who attempted more free throw shots? Explain your thinking.

---



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**2** Who missed more free throws? Explain your thinking.

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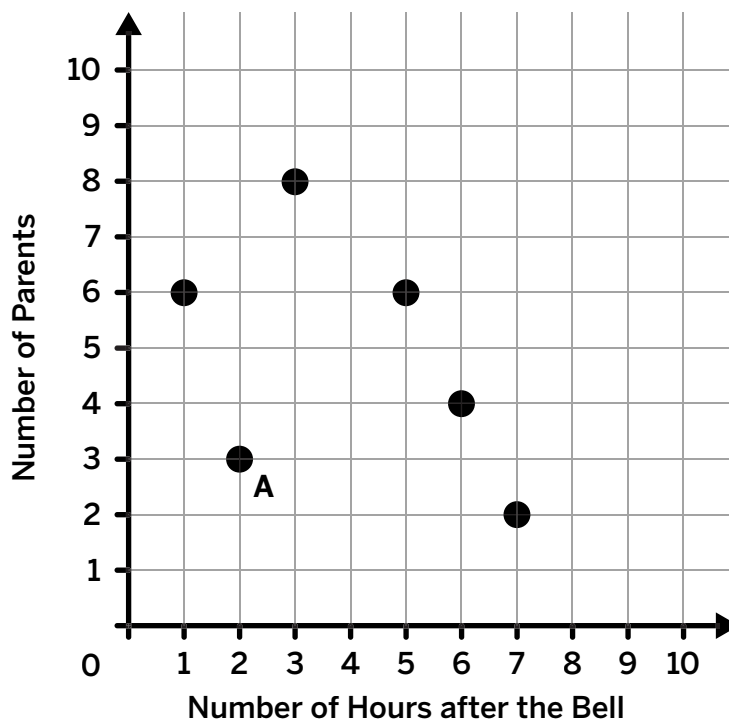
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Name \_\_\_\_\_ Date \_\_\_\_\_

The graph shows the number of parents at the school at different times after the bell rang. Use the graph for Problems 3-5.



**3** What does the ordered pair of point A represent in this context?

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**4** Plot a point on the coordinate grid to show that 5 parents were at the school 4 hours after the bell. Label the point with its ordered pair.

**5** Describe how you could plot the point (5.5, 6) on a coordinate grid.

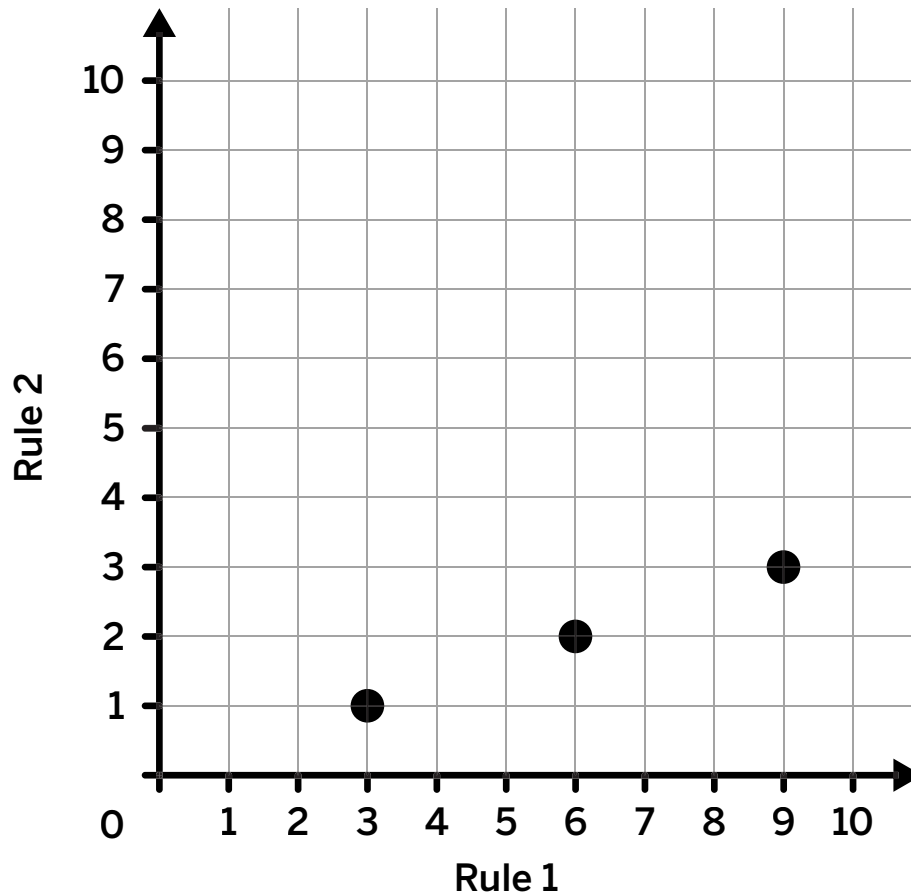
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# Additional Practice

7.12

- 1 Write a statement describing the relationship between corresponding terms in Rule 1 and Rule 2.




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- 2 If the pattern continued, would the ordered pair (27, 9) be on this graph? Explain your thinking.

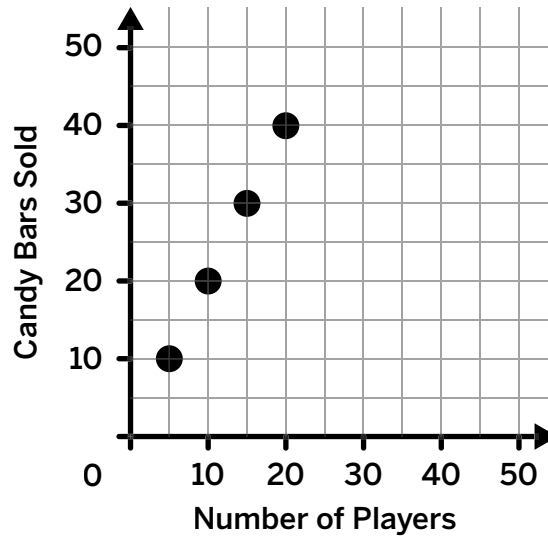
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Name \_\_\_\_\_ Date \_\_\_\_\_

The graph shows the amount candy bars sold by a baseball team during their team's fundraiser. Use the graph for Problems 3-5. Explain why each statement about the graph is *true*.



**3** The first group of 5 players sold 10 candy bars.

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**4** Each group of 5 players sold the same amount of candy bars as the first group of 5 players.

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**5** If each player sells the same amount of candy bars, then the point (70, 140) will be on the graph.

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