

Amplify Desmos Math

Grade 4

◆ **Additional Practice**
Student Resources

About Amplify

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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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Grade 4

Unit 1

Additional Practice

Practice Problems



Additional Practice

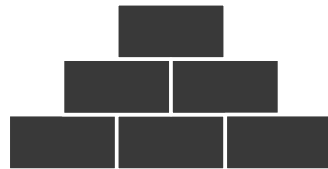
1.02

Maria followed a rule to build the pattern of rectangular blocks shown. Use Maria's pattern for Problems 1 and 2.

Step 1:

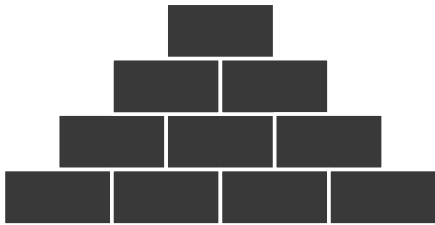


Step 2:

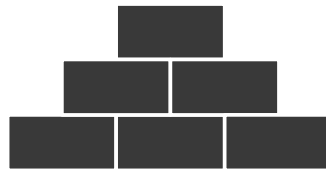


1 Which image shows what Step 3 would look like?

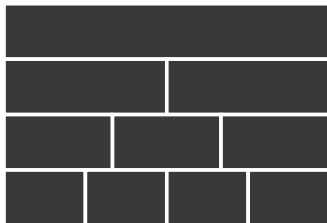
(A)



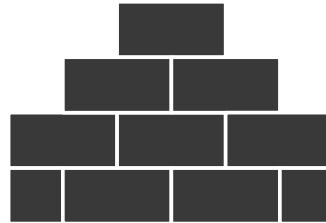
(B)



(C)



(D)



2 What would Step 4 look like? Draw an image of Step 4.

 Draw _____

Name _____ Date _____

Here is a pattern that follows a rule. Use the pattern for Problems 3–5.



3 Describe how the pattern grows.

4 Which expression **cannot** be used to find the number of squares in Step 4 of the pattern?

- (A) $3 + 3 + 3 + 3$

 (B) 3×3
 (C) $9 + 3$

 (D) 3×4

5 Complete the table below to show how many squares would be in each step of the pattern.

Steps	Step 4	Step 5	Step 6
Number of Squares			

Katie is making a pattern with black triangles. Use the pattern for Problem 6.



6 Which expression can be used to determine the number of black triangles in Step 4?

- (A) $1 + 4$

 (B) $1 + 6$
 (C) $6 + 4$

 (D) $6 + 6$

Additional Practice**1.03**

For Problems 1–3, use the given rule to generate the next 6 numbers in the pattern. The first number is provided.

1 Rule: Add 4

5, _____

2 Rule: Subtract 2

20, _____

3 Rule: Multiply by 2

2, _____

4 For each number in the table, multiply it by 4 and add 5.

Number	Multiply by 4, add 5
3	
6	
7	
10	

5 For each number in the table, multiply it by 2 and subtract 2.

Number	Multiply by 2, subtract 2
4	
6	
7	
9	

Name _____ Date _____

- 6 For each number in the table, multiply it by 4 and subtract 1.

Number	Multiply by 4, subtract 1
3	
5	
6	
7	

- 7 Select the list of numbers that follows the rule: Add 3.

- (A) 5, 13, 15, 18, 20
- (B) 3, 6, 9, 12, 15
- (C) 2, 6, 8, 14, 17
- (D) 1, 4, 7, 11, 14

- 8 Select the list of numbers that follows this rule: Add 5, then subtract 2.
Select *all* that apply.

- (A) 5, 10, 15, 20, 25
- (B) 4, 8, 12, 16, 20
- (C) 3, 6, 9, 12, 15
- (D) 2, 6, 10, 14, 18
- (E) 1, 4, 7, 10, 13

Additional Practice**1.04**

Use the chart for Problems 1–3.

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

1 Draw a square around all the multiples of 3 in the chart.

2 Draw a circle around all the multiples of 7 in the chart.

3 List all the multiples that 3 and 7 have in common.

4 Which of the following numbers are multiples of 12? Select *all* that apply.

(A) 4

(B) 6

(C) 12

(D) 24

(E) 36

(F) 50

Name _____ Date _____

Use the chart for Problems 5–9.

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

5 Choose 2 numbers between 1 and 10.

_____ and _____

6 Draw a circle around all the multiples of your first number in the chart.

7 Draw a square around all the multiples of your second number in the chart.

8 Which numbers have more than one shape around them?

9 Why do some of the numbers have more than 1 shape around them?

Additional Practice

1.05

Use the situation to for Problems 1 and 2.

A carpenter wants to design different rectangular tables, each with an area of 24 square units. For Problems 1 and 2, determine whether the carpenter can design the table with the given width. Circle **yes** or **no**.

 Show or explain your thinking.

1 A table with a width of 4 units

Yes

No

2 A table with a width of 5 units

Yes

No

3 Mia wants to create a rectangle with an area of 30 square units and a width of 5 units. Can Mia create this rectangle? Explain your thinking.

 Show or explain your thinking.

Name _____ Date _____

4 A rectangle has an area of 20 square units. Which pairs of numbers could be the side lengths, in units, of the rectangle? Select *all* that apply.

(A) 1 and 20

(B) 2 and 10

(C) 4 and 5

(D) 3 and 7

(E) 5 and 5

(F) 10 and 2

5 A rectangle has a width of 4 units and a length that is a whole number. Which of the following could be a possible area of the rectangle in square units? Select *all* that apply.

(A) 4

(B) 8

(C) 12

(D) 16

(E) 20

(F) 24

6 Match the area of the rectangle to the correct side lengths.

Rectangle Area
(square units)

Side Length
(units)

20

6 and 7

18

5 and 7

35

4 and 5

42

2 and 9

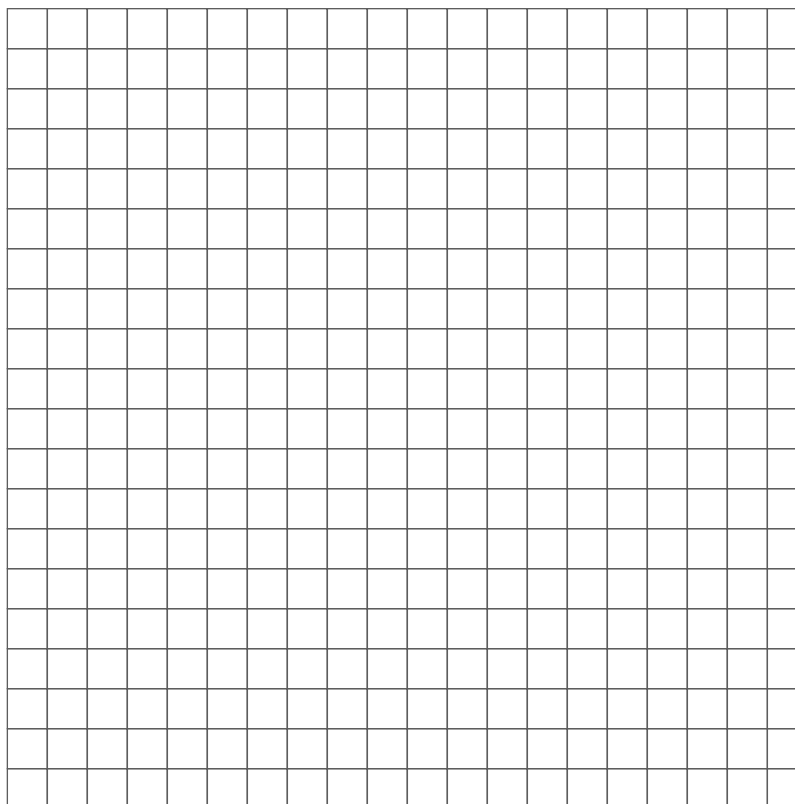
Additional Practice

1.06

- 1** List all of the factors of 70.

- 2** What can the factors of a number tell you about a rectangle with the area of that number?

- 3** Use the grid to draw all the possible rectangles with an area of 18. Each grid square has an area of 1 square unit.



Name _____ Date _____

- 4 Record the dimensions of each rectangle you drew in Problem 3 as a multiplication expression.

- 5 What are all the possible side lengths for a rectangle with an area of 24?

- (A) 1, 3, 4, 6, 12, 24
(B) 1, 2, 3, 4, 6, 8, 12, 24
(C) 1, 2, 3, 4, 6, 12, 24
(D) 1, 3, 4, 6, 8, 12

- 6 Determine whether the side lengths given are possible for each area.

Side lengths	Area (square units)	Possible? (yes or no)
6×5	30	
3×8	25	
4×6	24	
7×3	21	

Additional Practice

1.07

- 1** Determine whether each number is **prime** or **composite**. Place a check mark in the correct column.

Number	Prime	Composite
3		
16		
29		
45		
13		
50		

- 2** Determine whether the numbers 11 and 19 are *prime* or *composite*. Explain your thinking.

i Show your thinking.

Name _____ Date _____

3 Complete the table to determine whether each number is **prime** or **composite**.

Number	Factor pairs	Prime or composite?	How do you know?
23			
30			
41			
46			

4 There are 36 states in Nigeria and 13 states in Malaysia. Complete the table to determine whether each number is **prime** or **composite**.

Number	Factor pairs	Prime or composite?
36		
13		

Match the word to its definition.

- | | |
|-----------------------|---|
| 5 Prime Number | the value when 2 numbers are multiplied |
| Composite Number | a whole number with only 2 factors |
| Factor | a whole number with more than 2 factors |
| Product | a number being multiplied |

Additional Practice

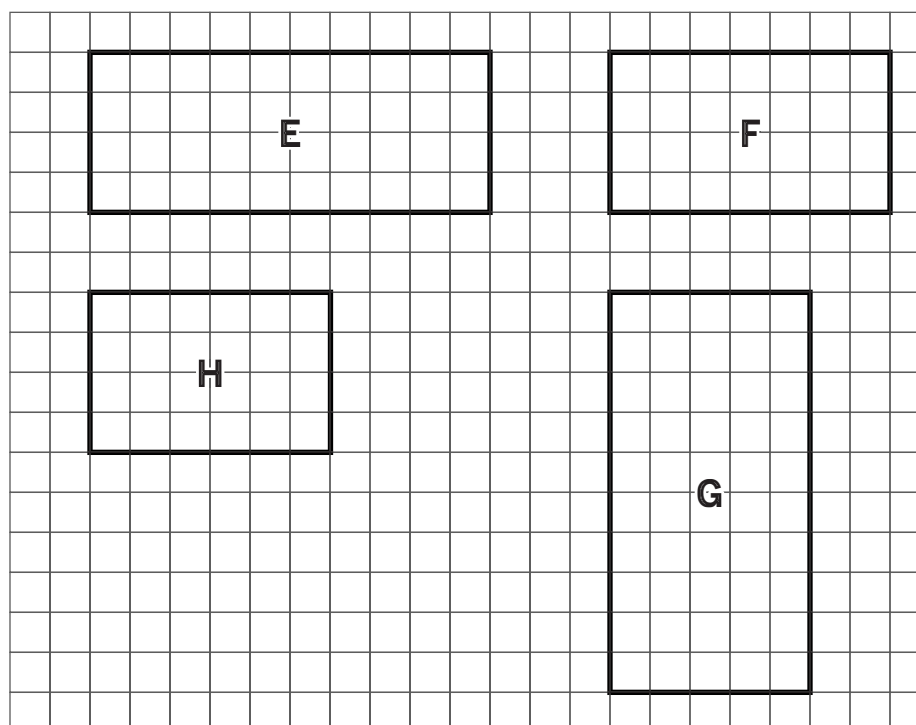
1.08

1 Write the product that matches each multiplication expression.

Product	Multiplication expression
36	_____ 3×8
54	_____ 9×6
24	_____ 4×9
72	_____ 6×3
18	_____ 8×9
36	_____ 6×6

For Problems 2–5, Find the area of the rectangle.

Each square in grid represents 1 square unit.



Name _____ Date _____

2 area of E: _____ square units

3 area of F: _____ square units

4 area of G: _____ square units

5 area of H: _____ square units

6 Clare bought 8 packs of juice boxes. Each pack contains 15 juice boxes. How many juice boxes did Clare purchase?

(A) 120 juice boxes

(B) 80 juice boxes

(C) 30 juice boxes

(D) 23 juice boxes

7 Priya bought 6 bus tickets last month. Each bus ticket costs \$4. Write a multiplication expression and determine the product to determine how much Priya spent on bus tickets last month.

expression: _____

product: _____

8 Jada says she can solve the product of 4×7 , by using 2×7 . Do you agree? Explain your thinking.

i Show your thinking.

Additional Practice

1.09

Use the numbers 18 and 24 for Problems 1 and 2.

- 1 List *all* the factors of 18 and 24.

Factors of 18: _____

Factors of 24: _____

- 2 What are the common factors of 18 and 24? _____

Use the information for Problems 3 and 4.

Markers are sold in packs of 8 and notebooks are sold in packs of 5.
Priya's teacher needs 40 markers and 25 notebooks for the class.

 Show your thinking. _____

- 3 How many packs of markers does Priya's teacher need to buy?

answer: _____

- 4 How many packs of notebooks does Priya's teacher need to buy?

answer: _____

Name _____ Date _____

Use the information for Problems 5 and 6.

Red pencils are sold in packs of 4, and green pencils are sold in packs of 7. Select which color pencil a student should buy to have no extras.

 Show or explain your thinking.

5 Diego wants to buy 42 of the same color pencil for his class.

red green

6 Clare wants to buy 32 of the same color pencil for her class.

red green

7 Jada is organizing her art supplies. She has 60 paintbrushes and wants the same number of brushes on each tray. How many trays could Jada use? Select *all* that apply.

A 8

B 4

C 5

D 6

E 10

F 14

8 List all possible factor pairs of 20.

Additional Practice

1.10

1 Select *all* the numbers that are multiples of both 2 and 5.

(A) 10

(B) 17

(C) 20

(D) 21

(E) 30

(F) 40

2 Select *all* the numbers that are factors of both 24 and 48.

(A) 8

(B) 12

(C) 4

(D) 6

(E) 3

(F) 7

3 List all the multiples of 9 that are less than or equal to 80.

4 List all the multiples of 3 that are less than or equal to 45.

5 List all the numbers less than or equal to 65 that are multiples of both 6 and 9.

Name _____ Date _____

6 List all the factors of 36.

7 List all the factors of 66.

8 List all the numbers that are factors of both 36 and 66.

For Problems 9–12, write *factor* or *multiple* to make the statement true.

9 24 is a _____ of 6.

10 3 is a _____ of 24.

11 25 is **not** a _____ of 8.

12 36 is a _____ of 4.

Additional Practice

1.11

1 Identify the mystery number using the clues.

- **Clue 1:** This number is composite.
- **Clue 2:** 6 is a factor of this number.
- **Clue 3:** 72 is a multiple of this number.
- **Clue 4:** This number is a multiple of 3.

mystery number: _____

2 Determine whether each number is a *multiple of 5*, a *factor of 50*, or *neither*. Place a check mark in the correct column.

Number	Multiple of 5	Factor of 50	Neither
2			
5			
12			
25			
33			

3 Match the numbers with the given clues.

18 25 50

5 is a factor of this number.

This number has 6 factors.

This number is a multiple of 9.

Name _____ Date _____

4 Which clue is true for the number 63?

- (A) 63 is prime.
- (B) 126 is a factor of 63.
- (C) 3 is a factor of 63.
- (D) 63 is a multiple of 8.

5 Consider the mystery number 19. Write 4 clues for the mystery number. 3 clues should be true and 1 clue should be false.

true: _____

true: _____

true: _____

false: _____

6 Choose a mystery number between 10 and 50. Write 4 clues for your mystery number.

mystery number: *12*

Clue 1: _____

Clue 2: _____

Clue 3: _____

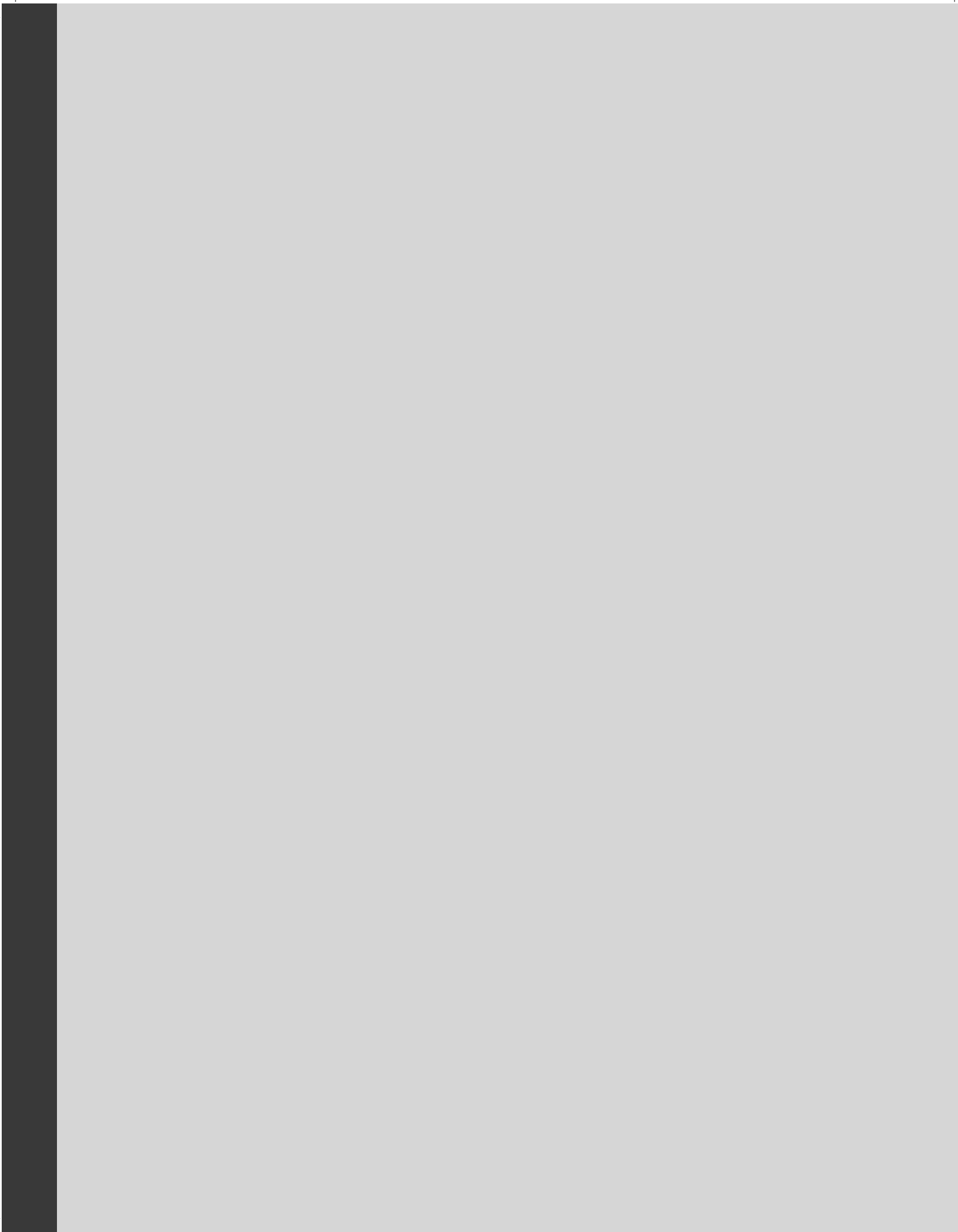
Clue 4: _____

Grade 4

Unit 2

Additional Practice

Practice Problems



Additional Practice

2.02

For Problems 1–6, each fraction strip diagram represents 1 whole.

- 1 Partition and shade the diagram to represent $\frac{1}{5}$.



- 2 Partition and shade the diagram to represent $\frac{1}{8}$.



- 3 Use the diagram to represent $\frac{1}{4}$.



- 4 Use the diagram to represent $\frac{1}{12}$.



- 5 Which fraction is represented by the shaded part on the diagram?



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

Name _____ Date _____

6 Which fraction is represented by the shaded part on the diagram?



- (A) $\frac{1}{10}$
- (B) $\frac{1}{8}$
- (C) $\frac{1}{6}$
- (D) $\frac{1}{12}$

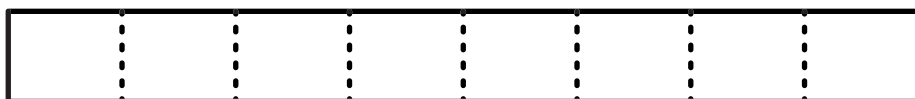
For Problems 7 and 8, write a unit fraction that represents the size of 1 part in each fraction strip.

7



answer: _____

8

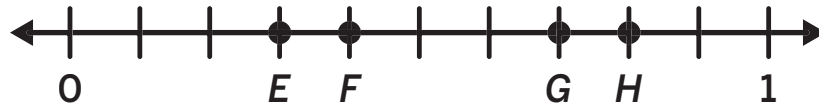


answer: _____

Additional Practice

2.03

For Problems 1–4, write a fraction to represent the point shown on the number line.



1 Point *E*:

2 Point *F*:

3 Point *G*:

4 Point *H*:

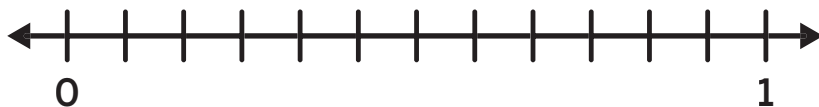
5 Which point on the number line is located at $\frac{5}{8}$?



- (A) Point *P*
- (B) Point *Q*
- (C) Point *R*
- (D) Point *S*

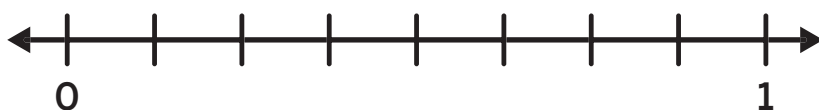
Name _____ Date _____

6 Locate and label $\frac{5}{12}$ on the number line.



For Problems 7 and 8, locate and label given fractions on the number line.

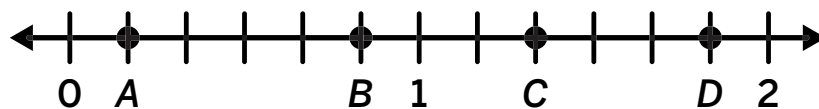
7 $\frac{3}{8}$



8 $\frac{4}{5}$



9 Which point on the number line is located at $\frac{5}{6}$?



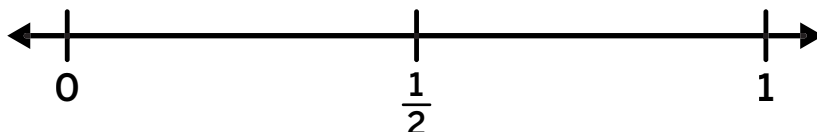
- (A) Point A
- (B) Point B
- (C) Point C
- (D) Point D

Additional Practice

2.04

For Problems 1–3, locate and label the set of fractions on the number line. Mark each fraction with a point.

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



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

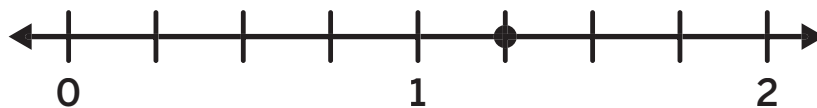


3 $\frac{2}{4}, \frac{4}{4}, \frac{5}{8}, \frac{6}{8}$



For Problems 4 and 5, identify the fraction represented by the point on the number line.

4 What fraction is represented by the point?



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

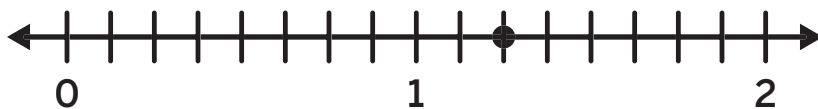
(B) $\frac{5}{4}$

(C) $\frac{4}{3}$

(D) $\frac{7}{6}$

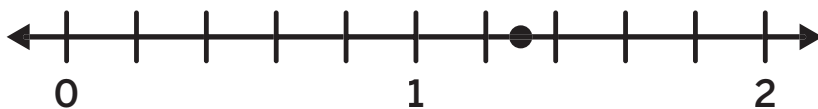
Name _____ Date _____

5 What fraction is represented by the point?



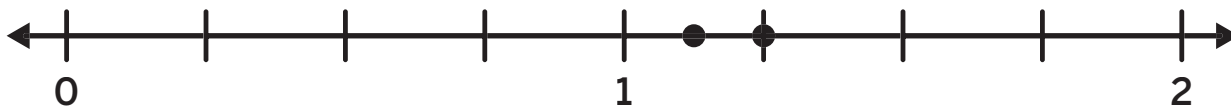
- (A) $\frac{3}{4}$
- (B) $\frac{10}{8}$
- (C) $\frac{5}{6}$
- (D) $\frac{7}{5}$

6 What fraction is represented by the point on the number line?



answer: _____

7 Jada found two pieces of string in her art kit. The lengths of the strings are $\frac{9}{8}$ inches and $\frac{5}{4}$ inches. Mark each length on the number line. Explain your thinking.



Additional Practice

2.05

- 1 Clare swam $\frac{3}{5}$ of a mile in the pool one day, and $\frac{4}{6}$ of a mile in the lake the next day. Did she swim the same distance at each location?

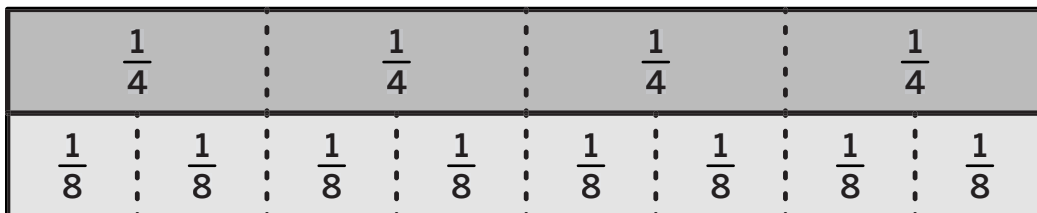
 Show or explain your thinking

answer: _____

- 2 Use the fraction strips to name three pairs of equivalent fractions. Explain how you know the fractions are equivalent.

Name _____ Date _____

- 3** Use the fraction strips to determine which pairs are equivalent fractions. Select *all* that apply.



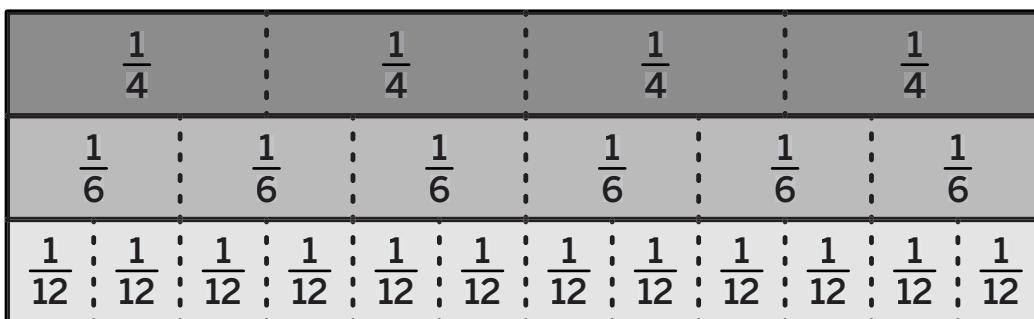
- A** $\frac{2}{8}$ and $\frac{1}{4}$

 B $\frac{4}{8}$ and $\frac{2}{4}$
 C $\frac{3}{4}$ and $\frac{6}{8}$

 D $\frac{1}{4}$ and $\frac{5}{8}$
 E $\frac{4}{4}$ and $\frac{8}{8}$

 F $\frac{3}{8}$ and $\frac{1}{4}$

- 4** Here is a diagram showing 3 fraction strips.



Use the fraction-strip diagram to determine if each statement is *true* or *false*.

Statement	True	False
$\frac{2}{4}$ is equivalent to $\frac{3}{6}$		
$\frac{5}{6}$ is equivalent to $\frac{10}{12}$		
$\frac{3}{4}$ is equivalent to $\frac{8}{12}$		
$\frac{1}{4}$ is equivalent to $\frac{4}{12}$		

Additional Practice

2.06

1 Write two equivalent fractions that the point on the number line represents.

i Show your thinking.



answer: _____

2 Use fraction strips to show two fractions that are equivalent to $\frac{2}{6}$.

i Show your thinking.

answer: _____

3 The fraction-strip diagram represents one whole. Select *all* the fractions that match the shaded part of the diagram.



(A) $\frac{4}{5}$

(B) $\frac{3}{5}$

(C) $\frac{4}{10}$

(D) $\frac{8}{10}$

Name _____ Date _____

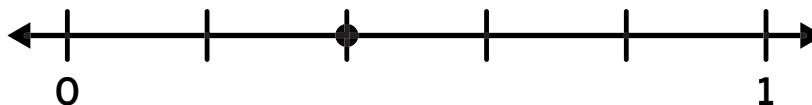
- 4 Determine two fractions that are equivalent to $\frac{4}{2}$. Use a fraction-strip diagram or number line to show how all three fractions are equivalent.

i Show your thinking.



answer: _____

- 5 Select *all* the fractions that are represented by the point on the number line.



- (A) $\frac{2}{5}$ (B) $\frac{4}{10}$ (C) $\frac{1}{3}$ (D) $\frac{5}{10}$

- 6 How are fraction-strip diagrams and number lines helpful when determining equivalent fractions?

Additional Practice

2.07

i Show your thinking.

- 1** Determine a fraction that is equivalent to $\frac{4}{6}$.



answer: _____

- 2** Determine a fraction that is equivalent to $\frac{6}{10}$.



answer: _____

- 3** Represent $\frac{6}{12}$ on the number line. Then determine a fraction that is equivalent to $\frac{6}{12}$.



answer: _____

Name _____ Date _____

- 4 Identify a fraction that is equivalent to $\frac{3}{4}$. Use the number line to help with your thinking.

i Show your thinking.



(A) $\frac{6}{10}$

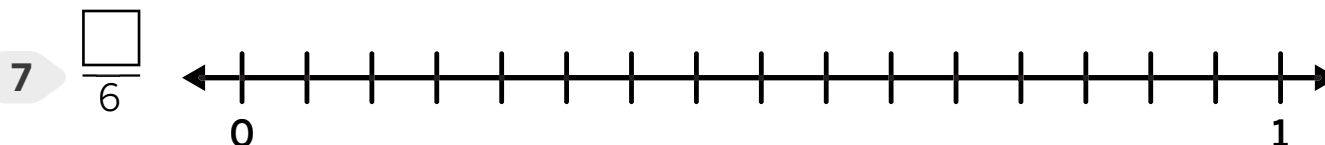
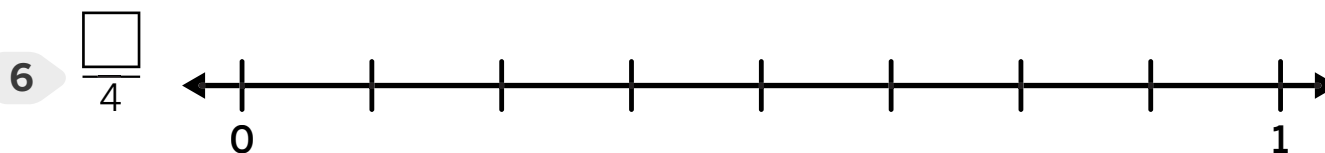
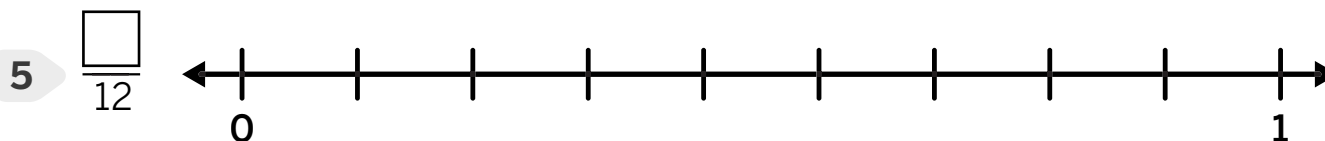
(B) $\frac{9}{12}$

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

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

For Problems 5–6, write the numerator to complete the fraction that is equivalent to $\frac{2}{8}$.

If there is not a numerator that works, write *not possible*.



Additional Practice

2.08

- 1 Determine whether each statement is *true* or *false*. Place a check-mark in the correct column.

Statement	True	False
$\frac{8}{4}$ is equivalent to $\frac{16}{8}$		
$\frac{8}{10}$ is equivalent to $\frac{3}{5}$		
$\frac{9}{12}$ is equivalent to $\frac{3}{4}$		
$\frac{4}{12}$ is equivalent to $\frac{2}{5}$		

- 2 Determine whether the fractions $\frac{8}{3}$ and $\frac{32}{12}$ are equivalent using a visual model, words, or equations.

i Show or explain your thinking.

answer: _____

- 3 Select *all* the fractions that are equivalent to $\frac{3}{9}$.

(A) $\frac{1}{3}$

(B) $\frac{6}{18}$

(C) $\frac{5}{12}$

(D) $\frac{9}{27}$

(E) $\frac{8}{30}$

(F) $\frac{10}{36}$

Name _____ Date _____

- 4 Determine another fraction that is equivalent to $\frac{5}{4}$ and $\frac{10}{8}$.

i Show or explain your thinking.

answer: _____

- 5 Determine whether the fractions $\frac{4}{6}$ and $\frac{16}{24}$ are *equivalent* or *not*.

i Show or explain your thinking.

answer: _____

- 6 Select *all* the equations that show equivalent fractions.

(A) $\frac{3}{4} = \frac{6}{12}$

(B) $\frac{5}{8} = \frac{15}{24}$

(C) $\frac{2}{3} = \frac{6}{10}$

(D) $\frac{7}{10} = \frac{21}{30}$

(E) $\frac{10}{15} = \frac{40}{60}$

(F) $\frac{4}{9} = \frac{16}{27}$

Additional Practice

2.09

- 1 Use factors to determine 2 fractions that are equivalent to $\frac{18}{12}$.

i Show or explain your thinking.

answer: _____

- 2 Determine a fraction that is equivalent to $\frac{21}{6}$.

i Show or explain your thinking.

answer: _____

- 3 Determine 2 fractions that are equivalent to $\frac{12}{8}$.

i Show or explain your thinking.

answer: _____

Name _____ Date _____

4 Select *all* the equations that show equivalent fractions.

(A) $\frac{12}{4} = \frac{6}{2}$

(B) $\frac{5}{7} = \frac{15}{25}$

(C) $\frac{4}{5} = \frac{12}{15}$

(D) $\frac{9}{2} = \frac{45}{20}$

(E) $\frac{3}{8} = \frac{9}{24}$

(F) $\frac{10}{6} = \frac{3}{4}$

5 Use multiples to determine 2 fractions that are equivalent to $\frac{3}{5}$.

i Show or explain your thinking.

answer: _____

For Problems 6–8, fill in the blank to make the equivalent fraction.

6 $\frac{3}{5} = \frac{\square}{15}$

7 $\frac{4}{3} = \frac{\square}{9}$

8 $\frac{1}{3} = \frac{\square}{27}$

Additional Practice**2.10**

For Problems 1–4, identify 2 fractions that are equivalent to the given fraction.

1 $\frac{10}{4}$

2 $\frac{14}{6}$

3 $\frac{25}{5}$

4 $\frac{80}{100}$

5 Use factors or multiples to determine 2 fractions that are equivalent to $\frac{9}{12}$.

 Show or explain your thinking.

answer: _____

6 Determine the fractions that are equivalent to $\frac{8}{10}$. Select *all* that apply.

(A) $\frac{4}{5}$

(B) $\frac{6}{9}$

(C) $\frac{12}{18}$

(D) $\frac{16}{20}$

Name _____ Date _____

- 7 Use factors or multiples to determine a fraction that is equivalent to $\frac{78}{100}$.

i Show your thinking.

answer: _____

- 8 Determine the fractions that are equivalent to $\frac{30}{10}$. Select *all* that apply.

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

(B) $\frac{300}{100}$

(C) $\frac{60}{5}$

(D) $\frac{15}{20}$

- 9 Clare made some oatmeal bars. She cut the bars into 8 equal pieces and ate 2 of the pieces. Circle *all* the statements that are true.

(A) Clare ate $\frac{1}{4}$ of the oatmeal bars.

(B) Clare ate $\frac{2}{6}$ of the oatmeal bars.

(C) Clare ate $\frac{3}{8}$ of the oatmeal bars.

(D) Clare ate $\frac{3}{12}$ of the oatmeal bars.

Additional Practice**2.11**

- 1** Which fraction is greater: $\frac{3}{8}$ or $\frac{5}{8}$? Show or explain your thinking.

i Show or explain your thinking.

answer: _____

For Problems 2–9, circle the greater fraction in each pair of fractions.

2 $\frac{7}{8}$ or $\frac{5}{8}$

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

4 $\frac{9}{10}$ or $\frac{9}{12}$

5 $\frac{4}{5}$ or $\frac{3}{5}$

6 $\frac{5}{12}$ or $\frac{7}{12}$

7 $\frac{4}{6}$ or $\frac{2}{6}$

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

9 $\frac{4}{8}$ or $\frac{7}{8}$

Name _____ Date _____

For Problems 10 and 11, complete the comparison statement.

10 $\frac{3}{8} < \frac{\square}{8}$

11 $\frac{\square}{10} > \frac{7}{10}$

12 Which fraction is greater: $\frac{1}{6}$ or $\frac{1}{9}$?

 **Show or explain your thinking.**

answer: _____

13 Priya says, “5 is greater than 3 so $\frac{5}{12}$ is greater than $\frac{3}{12}$.” Do you agree? Why or why not?

Additional Practice

2.12

For Problems 1–3, complete the comparison using $<$, $>$, or $=$.

 Show or explain your thinking.

1 $\frac{3}{8}$ _____ $\frac{12}{32}$

2 $\frac{2}{3}$ _____ $\frac{7}{9}$

3 $\frac{11}{5}$ _____ $\frac{22}{10}$

4 Determine whether each statement is *true* or *false*. Place a check mark in the correct column.

Statement	True	False
$\frac{5}{9}$ is greater than $\frac{2}{3}$		
$\frac{11}{15}$ is greater than $\frac{2}{3}$		
$\frac{40}{80}$ is greater than $\frac{3}{4}$		
$\frac{7}{10}$ is greater than $\frac{4}{5}$		

Name _____ Date _____

For Problems 5–7, circle the greater fraction in each pair of fractions.

i Show or explain your thinking.

5 $\frac{18}{15}$ or $\frac{7}{5}$

6 $\frac{4}{5}$ or $\frac{7}{10}$

7 $\frac{3}{6}$ or $\frac{8}{12}$

8 On Monday, there was $\frac{3}{8}$ inch of rain. On Tuesday, there was $\frac{1}{2}$ inch of rain. Which day received more rain?

i Show or explain your thinking.

answer: _____

Additional Practice**2.13****For Problems 1–3, circle the greater fraction in each pair.****i** Show or explain your thinking. _____

1 $\frac{3}{8}$ or $\frac{2}{5}$

2 $\frac{7}{4}$ or $\frac{9}{6}$

3 $\frac{1}{3}$ or $\frac{7}{12}$

4 Identify the false comparison statement.

(A) $\frac{8}{3} > \frac{5}{2}$

(B) $\frac{7}{4} > \frac{3}{2}$

(C) $\frac{10}{6} > \frac{5}{3}$

(D) $\frac{6}{9} > \frac{1}{3}$

5 Which statements are true? Select *all* that apply.

(A) $\frac{7}{8} > \frac{5}{10}$

(B) $\frac{3}{4} = \frac{6}{8}$

(C) $\frac{2}{5} > \frac{6}{7}$

(D) $\frac{9}{12} = \frac{3}{4}$

Name _____ Date _____

For Problems 6 and 7, determine whether the statement is *true* or *false*.

i Show or explain your thinking. _____

6 $\frac{3}{4} = \frac{5}{7}$

answer: _____

7 A recipe for banana bread has 3 ingredients that are each measured in fractions of a cup.

- $\frac{5}{6}$ cup of sugar
- $\frac{7}{8}$ cup of flour
- $\frac{3}{4}$ cup of banana

Which ingredient has the greatest amount? Which ingredient has the least amount?

i Show or explain your thinking. _____

greatest amount: _____ least amount: _____

Name _____ Date _____

3 Select the set of fractions that is ordered from least to greatest.

(A) $\frac{1}{5}, \frac{2}{4}, \frac{3}{3}$

(B) $\frac{1}{3}, \frac{1}{6}, \frac{5}{9}$

4 Select the set of fractions that is ordered from least to greatest.

(A) $\frac{3}{8}, \frac{1}{3}, \frac{1}{2}$

(B) $\frac{1}{2}, \frac{2}{3}, \frac{7}{8}$

5 Select whether each statement is *true* or *false*. Place a check mark in the correct column.

Statement	True	False
$\frac{9}{5}$ is greater than $\frac{12}{10}$		
$\frac{4}{9}$ is greater than $\frac{6}{12}$		
$\frac{2}{3}$ is less than $\frac{5}{6}$		
$\frac{2}{8}$ is less than $\frac{2}{5}$		

6 Han thinks that $\frac{3}{6}, \frac{9}{10},$ and $\frac{13}{8}$ are in order from least to greatest. Do you agree? Why or why not?

Additional Practice

2.15

 Show your thinking.

1 Determine which fraction is the *least* and which is the *greatest*.

$$\frac{1}{4}, \frac{5}{12}, \frac{2}{3}$$

least: _____

greatest: _____

2 Order the set of fractions from the least to the greatest.

$$\frac{9}{5}, \frac{3}{5}, \frac{5}{8}, \frac{5}{12}$$

_____, _____, _____, _____
least

greatest

Name _____ Date _____

 Show your thinking.

3 Order the set of fractions from *least to greatest*.

$$\frac{7}{5}, \frac{4}{3}, \frac{3}{8}, \frac{90}{100}$$

_____ , _____ , _____ , _____
least

greatest

4 Determine which fraction is the greatest.

$$\frac{11}{10}, \frac{2}{5}, \frac{7}{8}, \frac{85}{100}$$

answer: _____

5 Which fraction is the greatest?

(A) $\frac{9}{7}$

(B) $\frac{5}{3}$

(C) $\frac{11}{12}$

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

6 Which fraction is the greatest?

(A) $\frac{10}{8}$

(B) $\frac{9}{11}$

(C) $\frac{6}{5}$

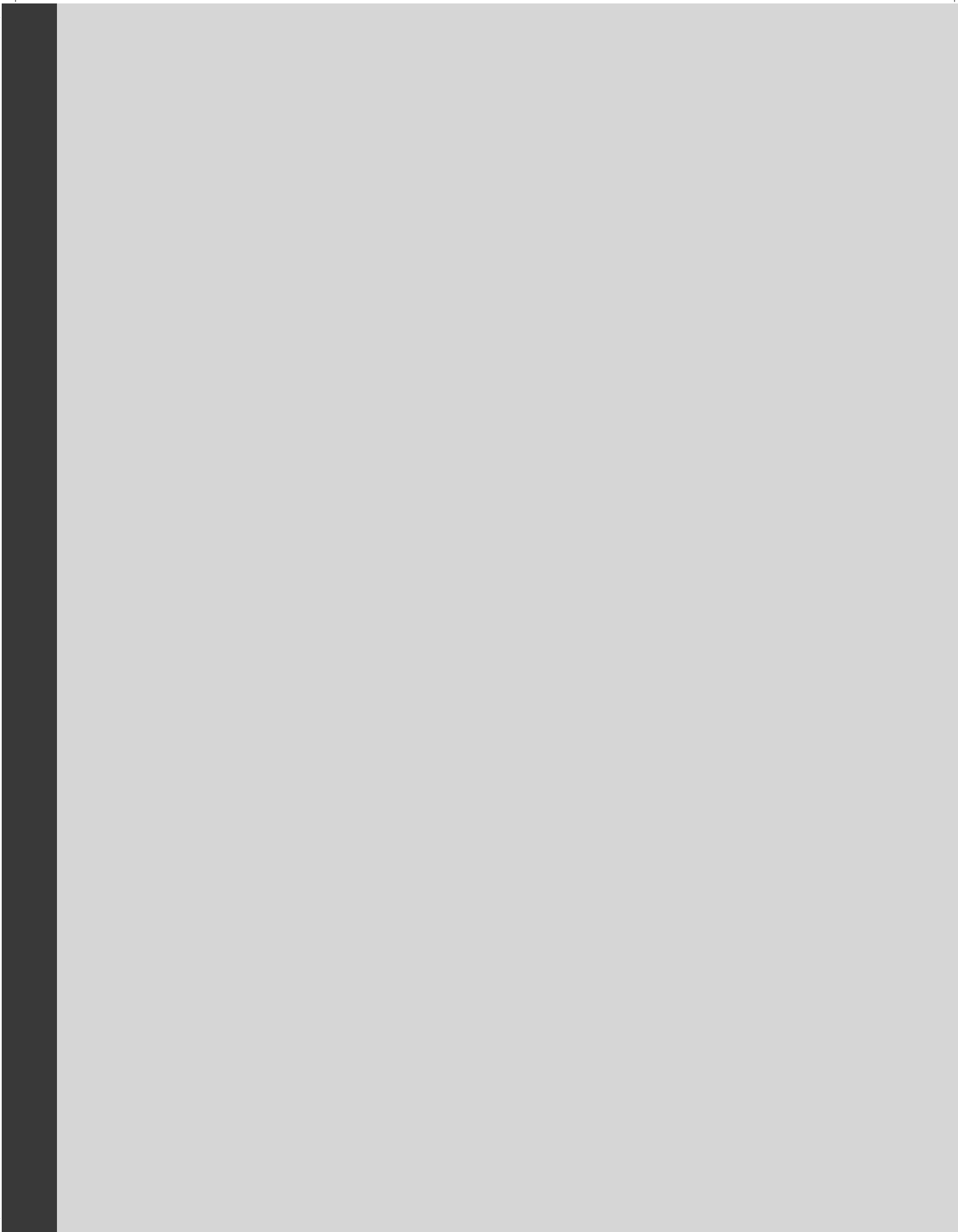
(D) $\frac{7}{9}$

Grade 4

Unit 3

Additional Practice

Practice Problems



Additional Practice

3.02

- 1** Jada is jogging in the park. She jogs east for $\frac{5}{12}$ of a mile and stops for a water break. Then she continues jogging east for another $\frac{4}{12}$ of a mile. How far is Jada from her starting point?

i Show your thinking.

model:

equation: _____

answer: _____

- 2** Clare's plant was $\frac{5}{10}$ feet tall. After 2 weeks, it grew another $\frac{3}{10}$ feet. How tall is Clare's plant now?

i Show your thinking.

model:

equation: _____

answer: _____

Name _____ Date _____

- 3 Han has a loaf of bread divided into equal parts. He eats $\frac{2}{5}$ of the loaf. What fraction of the loaf does Han have left?

i Show your thinking.

model:

equation: _____

answer: _____

- 4 Henry had $\frac{7}{8}$ of a pizza. He ate $\frac{5}{8}$ of the pizza. How much of the pizza is left?

i Show your thinking.

model:

equation: _____

answer: _____

- 5 Which equation does this model represent?



(A) $\frac{3}{5} + \frac{2}{5} = \frac{2}{5}$

(B) $\frac{3}{5} - \frac{1}{5} = \frac{2}{5}$

(C) $\frac{2}{5} - \frac{1}{5} = \frac{1}{5}$

(D) $\frac{3}{5} + \frac{1}{5} = \frac{4}{5}$

Additional Practice

3.03

- 1 Determine whether each equation is *true* or *false*. Place a check mark in the correct column.

	True	False
$\frac{4}{10} + \frac{2}{10} = \frac{7}{10}$		
$\frac{3}{5} + \frac{2}{5} = \frac{5}{5}$		
$\frac{5}{8} + \frac{1}{8} + \frac{1}{8} = \frac{7}{8}$		
$\frac{2}{10} + \frac{3}{10} + \frac{4}{10} = \frac{9}{10}$		

- 2 Diego and Priya are each building a tower using two different sizes of blocks: $\frac{4}{5}$ feet tall and $\frac{2}{5}$ feet tall. Both of their towers are same height, but they used the blocks in different ways. What are the possible ways that Diego and Priya built their towers?

i Show your thinking.

Diego's tower

Priya's tower

Name _____ Date _____

3 Write $\frac{5}{8}$ as a sum of fractions in 5 different ways.

$$\frac{5}{8} = \underline{\hspace{2cm}}$$

$$\frac{5}{8} = \underline{\hspace{2cm}}$$

$$\frac{5}{8} = \underline{\hspace{2cm}}$$

$$\frac{5}{8} = \underline{\hspace{2cm}}$$

$$\frac{5}{8} = \underline{\hspace{2cm}}$$

4 Write the equivalent fraction to match the mixed number given below.

$$\frac{4}{3}$$

$$\frac{7}{4}$$

$$\frac{3}{2}$$

$$\frac{8}{3}$$

$$1\frac{1}{2} = \underline{\hspace{2cm}}$$

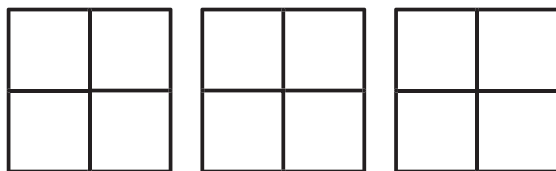
$$1\frac{1}{3} = \underline{\hspace{2cm}}$$

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

$$1\frac{3}{4} = \underline{\hspace{2cm}}$$

5 Represent $2\frac{1}{4}$ as a sum of fractions.

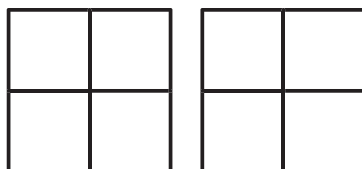
i Show your thinking.



answer: _____

6 Represent $\frac{5}{4}$ amount as a sum of fractions.

i Show your thinking.



answer: _____

Additional Practice**3.04**

For Problems 1 and 2, create a visual model to represent the situation. Then write an equation that matches your model and record your answer.

i Show your thinking.

- 1** On Wednesday, Shawn's cat ate $\frac{5}{10}$ cups of cat food. On Thursday, Shawn's cat ate $\frac{6}{10}$ cups of cat food. How much more cat food did the cat eat on Thursday than on Wednesday?

model:

equation: _____

answer: _____

- 2** Clare adopted a kitten from the local shelter. The kitten currently weighs $7\frac{3}{4}$ kilograms. If the kitten weighed 5 kilograms when it was first brought home, how much weight has it gained?

model:

equation: _____

answer: _____

Name _____ Date _____

- 3** Select the equation that represents the following problem.
Megan bought $\frac{9}{5}$ pounds of mixed peanuts and almonds. If she bought $\frac{4}{5}$ pounds of peanuts, then how many pounds of almonds did she buy?

(A) $\frac{9}{5} + \frac{4}{5} = \frac{13}{5}$ (B) $\frac{9}{5} - \frac{4}{5} = \frac{5}{5}$ (C) $\frac{4}{5} - \frac{9}{5} = \frac{5}{5}$ (D) $\frac{4}{5} + \frac{9}{5} = \frac{5}{5}$

- 4** Han is making a smoothie. He pours $\frac{3}{4}$ cup of orange juice and $\frac{2}{4}$ cup of apple juice into a blender. How many cups of juice are in Han's smoothie? Represent the situation with a model, an addition equation, and a subtraction equation. Then write the answer.

i Show your thinking.

model:

addition equation: _____

subtraction equation: _____

answer: _____

- 5** Priya bought some apples and oranges. She bought $\frac{2}{3}$ pounds of apples and $\frac{4}{3}$ pounds of oranges. How many total pounds of fruit did Priya buy?

(A) $\frac{2}{3} + \frac{4}{3} = \frac{6}{3}$

(B) $\frac{4}{3} - \frac{2}{3} = \frac{2}{3}$

(C) $\frac{2}{3} - \frac{4}{3} = \frac{2}{3}$

(D) $\frac{4}{3} + \frac{2}{3} = \frac{8}{3}$

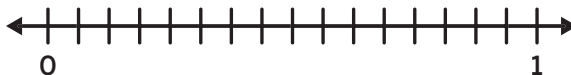
Additional Practice

3.05

For Problems 1–3, represent the expression on the number line and then determine the value.

i Show your thinking.

1 $\frac{15}{8} - \frac{9}{8}$



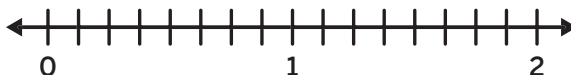
answer: _____

2 $\frac{4}{12} + \frac{7}{12}$



answer: _____

3 $\frac{5}{6} + \frac{5}{6}$

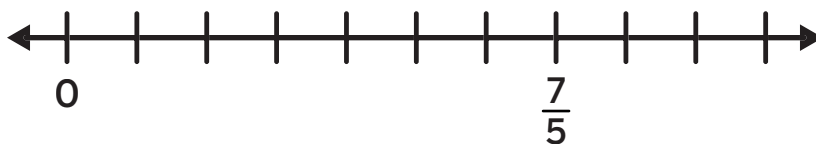


answer: _____

Name _____ Date _____

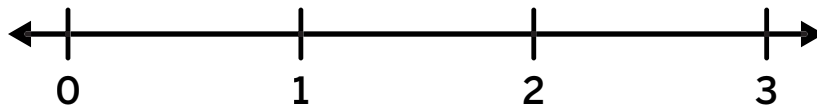
- 4 Represent the expression $1\frac{2}{5} - \frac{4}{5}$ on the number line and then determine the value.

i Show your thinking.



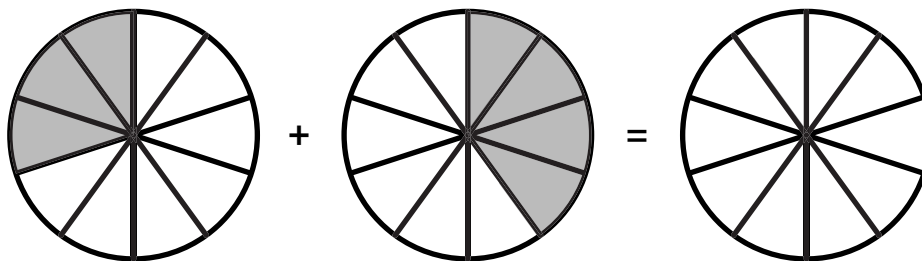
answer: _____

- 5 Use the number line to help you estimate the sum of the expression $\frac{7}{8} + \frac{5}{8}$.



- (A) less than 1 (B) between 1 and 2 (C) greater than 2

- 6 Write the equation that represents the model.



equation: _____

Additional Practice**3.06**

For Problems 1–3, evaluate the expression.

 Show or explain your thinking.

1 $1\frac{2}{5} + 3\frac{1}{5}$

answer: _____

2 $5\frac{4}{8} + 3\frac{6}{8}$

answer: _____

3 $2\frac{2}{3} - 1\frac{1}{3}$

answer: _____

Name _____ Date _____

For Problems 4 and 5, solve the story problem.

i Show your thinking. _____

- 4** Han is in a book club. They read $\frac{3}{5}$ of the book together and $\frac{1}{5}$ on their own. How much of the book did they read?

answer: _____

- 5** Jada walked $3\frac{4}{6}$ miles. Diego walked $1\frac{2}{6}$ miles. How much farther did Jada walk than Diego?

answer: _____

- 6** Select *all* the ways that 4 could be decomposed to subtract $\frac{2}{5}$.

(A) $3\frac{6}{5}$

(B) $3\frac{5}{5}$

(C) $\frac{20}{5}$

(D) $\frac{25}{5}$

- 7** Henry has a jar that can hold 5 cups of juice. How much juice will Henry have left if he pours $\frac{2}{5}$ cups of juice into Priya's cup?

i Show your thinking. _____

answer: _____

Additional Practice**3.07**

For Problems 1–4, solve the story problem. You may need to decompose at least one of the numbers.

i Show your thinking.

- 1** Clare and Diego went biking on a trail. Clare biked $4\frac{1}{2}$ miles. Diego biked $1\frac{1}{2}$ miles less than Clare. How far did Diego bike?

answer: _____

- 2** Jada is designing a picture frame. She wants the total length of the wooden frame and border to be $22\frac{2}{4}$ inches. She is using $3\frac{3}{4}$ inches of border. How long does the wooden frame need to be?

$$22\frac{2}{4}$$

answer: _____

- 3** Shawn bought $3\frac{7}{10}$ pounds of bananas and $4\frac{4}{10}$ pounds of grapes. What was the total weight of the fruit Shawn purchased?

answer: _____

Name _____ Date _____

i Show your thinking.

- 4** Priya is preparing fruit juice for a picnic. She adds $12\frac{5}{8}$ cups of water to $4\frac{3}{8}$ cups of juice mix. How many cups of liquid does she have in total?

answer: _____

For Problems 5–7, evaluate the expression. You may need to decompose at least one of the numbers.

i Show your thinking.

5 $2\frac{3}{5} + 1\frac{4}{5}$

answer: _____

6 $6 - 4\frac{2}{10}$

answer: _____

7 $3\frac{4}{6} + 2\frac{5}{6}$

answer: _____

Additional Practice

3.08

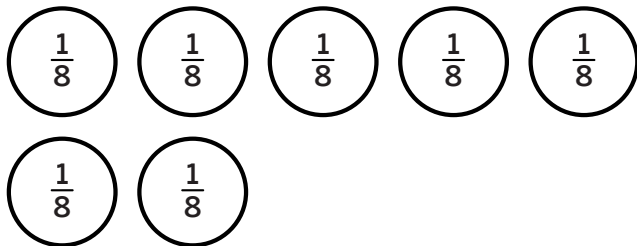
For Problems 1 and 2, consider the expression $8 \times \frac{1}{4}$.

1 Write a story that matches the expression.

2 Create a drawing to show the expression.

 Draw

3 Which expression represents the drawing?



- A $7 + \frac{1}{8}$
 B $7 \times \frac{1}{8}$
 C $8 \times \frac{1}{7}$
 D $6 + \frac{1}{8}$

4 Create a drawing to represent the expression $5 \times \frac{1}{4}$.

 Draw

Name _____ Date _____

- 5 Han had 6 bowls. He put $\frac{1}{5}$ of a fruit salad in each bowl. Write a multiplication expression to represent the total amount of fruit salad Han put in each bowl.



expression: _____

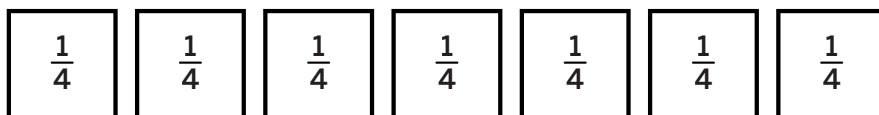
- 6 Write an addition expression and a multiplication expression to represent the drawing.



addition expression: _____

multiplication expression: _____

- 7 Write an addition expression and a multiplication expression to represent the drawing.



addition expression: _____

multiplication expression: _____

Additional Practice

3.09

1 Select the value of the expression $3 \times \frac{1}{4}$.

(A) $\frac{3}{12}$

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

(C) $\frac{4}{3}$

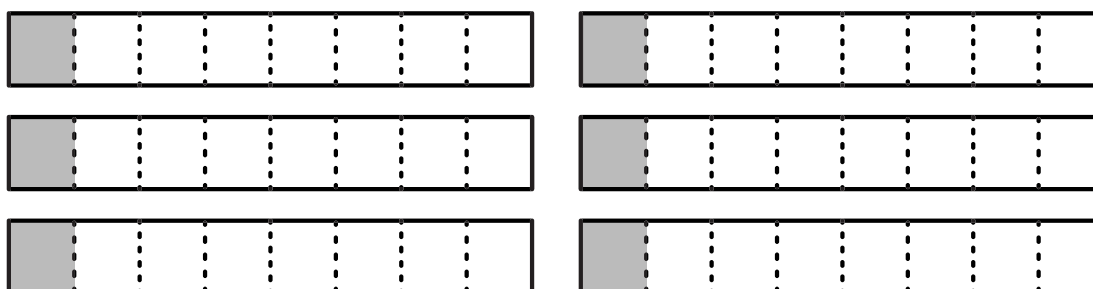
(D) $\frac{12}{4}$

2 Draw a diagram to represent the expression $5 \times \frac{1}{3}$. Then determine the product of the expression.

 Draw

answer: _____

3 Write a multiplication expression to represent the diagram. Then determine its value.



expression: _____

value: _____

Name _____ Date _____

- 4 Draw a diagram to represent the expression $6 \times \frac{1}{4}$. Then determine the product of the expression.

 Draw

answer: _____

- 5 Which diagram represents the expression $3 \times \frac{1}{5}$? Complete the sentence.

Diagram A

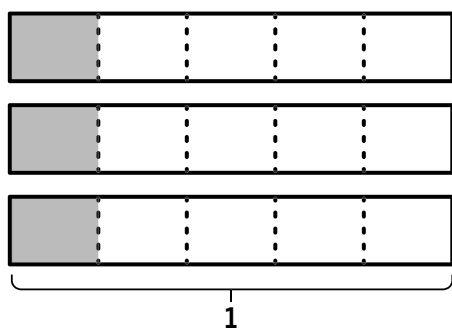


Diagram B

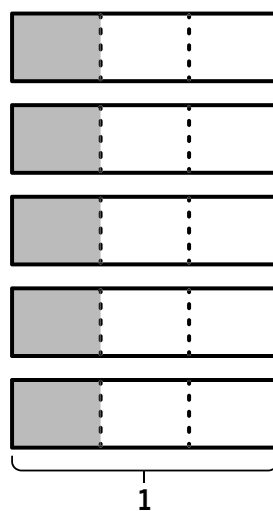
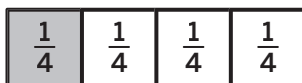
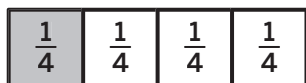
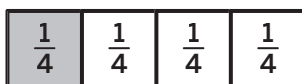
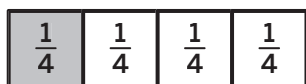


Diagram _____ represents the expression.

- 6 Write a multiplication expression to represent the diagram.

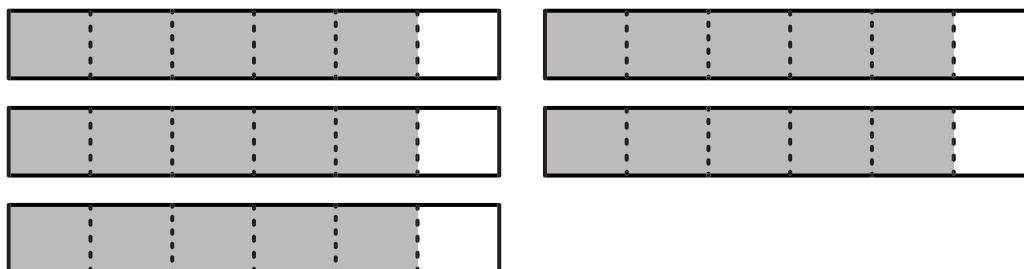


answer: _____

Additional Practice

3.10

1 Select the multiplication expression that represents the diagram.



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

2 Write a multiplication expression to represent the diagram. Then, determine the product.



expression: _____

product: _____

3 Draw a diagram to represent the expression $4 \times \frac{4}{10}$.

 Draw

Name _____ Date _____

- 4** Explain how you could use your diagram in Problem 3 to determine the product of the expression $4 \times \frac{4}{7}$.

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

5 $3 \times \frac{3}{4} =$ _____

6 $4 \times \frac{2}{3} =$ _____

7 $5 \times \frac{1}{10} =$ _____

8 $6 \times \frac{2}{5} =$ _____

9 $4 \times \frac{4}{5} =$ _____

10 $3 \times \frac{5}{10} =$ _____

- 11** Draw a diagram that represents the expression $6 \times \frac{4}{5}$. Then, determine the product.

 Draw

answer: _____

Additional Practice**3.11**

- 1** Draw 2 different diagrams that are equivalent to $\frac{6}{10}$. Then, write a multiplication expression that matches each diagram.

 Draw

expression: _____

expression: _____

For Problems 2–7, determine the missing factor that makes each equation true.

2 $\frac{5}{6} = \text{---} \times \frac{1}{6}$

3 $\frac{7}{9} = 7 \times \text{---}$

4 $\frac{12}{5} = \text{---} \times \frac{4}{5}$

5 $\frac{15}{4} = 3 \times \text{---}$

6 $\frac{18}{3} = \text{---} \times \frac{1}{3}$

7 $\frac{3}{10} = 1 \times \text{---}$

Name _____ Date _____

8 Select the expression that is equivalent to $\frac{7}{8}$.

(A) $7 \times \frac{1}{8}$

(B) $2 \times \frac{3}{8}$

(C) $3 \times \frac{2}{8}$

(D) $4 \times \frac{2}{8}$

9 Select *all* the expressions that are equivalent to $6 \times \frac{1}{5}$.

(A) $3 \times \frac{2}{5}$

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

(C) $4 \times \frac{2}{5}$

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

10 Write 4 different multiplication expressions that are equivalent to $\frac{8}{12}$.

$\frac{8}{12} = \underline{\quad} \times \underline{\quad}$

$\frac{8}{12} = \underline{\quad} \times \underline{\quad}$

$\frac{8}{12} = \underline{\quad} \times \underline{\quad}$

$\frac{8}{12} = \underline{\quad} \times \underline{\quad}$

Additional Practice**3.12**

- 1 The table shows the amount of each ingredient for 1 batch of vegetable soup. Complete the table to show how much of each ingredient Clare needs to make 4 batches of vegetable soup.

Ingredient	Multiplication Expression	Total Amount of Ingredient
$\frac{2}{3}$ cups carrots		
$\frac{5}{4}$ cups vegetable stock		
$\frac{3}{2}$ cups beans		
$\frac{1}{2}$ teaspoon sea salt		

- 2 A recipe states that a fruit smoothie requires $\frac{3}{4}$ cup of yogurt for each batch. If Mia has 3 cups of yogurt, does she have enough to make 4 batches of smoothies? Explain your thinking.

- 3 Diego biked $\frac{3}{5}$ miles every day for 6 days. What was the total distance he biked over the 6 days?

(A) $\frac{3}{30}$ miles

(B) $3\frac{3}{5}$ miles

(C) $1\frac{4}{5}$ miles

(D) $5\frac{3}{5}$ miles

Name _____ Date _____

- 4 A chef spends $\frac{4}{5}$ hours baking one pan of muffins. If the chef needs to bake 5 pans of muffins, how many hours will it take?

 Show your thinking.

answer: _____

- 5 Write the correct fraction on the line to match the equation.

$$\frac{8}{3}$$

$$\frac{5}{6}$$

$$\frac{6}{4}$$

$$\frac{40}{10} = 4$$

$$8 \times \frac{5}{10} = \underline{\hspace{2cm}}$$

$$2 \times \frac{3}{4} = \underline{\hspace{2cm}}$$

$$4 \times \frac{2}{3} = \underline{\hspace{2cm}}$$

$$5 \times \frac{1}{6} = \underline{\hspace{2cm}}$$

- 6 A bread recipe calls for $\frac{3}{4}$ teaspoon of baking soda. If Jada makes 3 loaves, how many teaspoons of baking soda does Jada use?

 Show your thinking.

answer: _____

Additional Practice

3.13

- 1 Draw a diagram and evaluate the expression $4 \times \frac{1}{6}$.

 Draw

answer: _____

For Problems 2–4, evaluate the expression using any strategy.

 Show your thinking.

2 $\frac{18}{100} + \frac{7}{10}$

answer: _____

3 $\frac{2}{10} + \frac{4}{100}$

answer: _____

i Show your thinking.

4 $\frac{8}{10} + \frac{14}{100}$

answer: _____

5 Complete the table with equivalent fractions in tenths or hundredths.

Tenths	Hundredths
$\frac{4}{10}$	
	$\frac{50}{100}$
$\frac{9}{10}$	
	$\frac{120}{100}$

6 Determine whether each equation is *true* or *false*. Place a check mark in the correct column.

Equation	True	False
$\frac{25}{100} + \frac{10}{100} = \frac{35}{100}$		
$\frac{30}{10} + \frac{20}{100} = \frac{50}{100}$		
$\frac{8}{10} + \frac{2}{10} = \frac{10}{100}$		
$\frac{12}{100} + \frac{5}{10} = \frac{62}{100}$		
$\frac{6}{100} + \frac{4}{100} = \frac{10}{100}$		

Additional Practice**3.14****1** Which expressions have a value greater than 1? Select *all* that apply.

(A) $\frac{9}{10} + \frac{12}{10}$

(B) $\frac{3}{4} + \frac{5}{4}$

(C) $\frac{2}{10} + \frac{5}{10}$

(D) $\frac{7}{5} + \frac{3}{5}$

2 Which expressions have a value less than 1? Select *all* that apply.

(A) $\frac{9}{10} + \frac{105}{100}$

(B) $\frac{6}{10} + \frac{35}{100}$

(C) $\frac{8}{10} + \frac{9}{100}$

(D) $\frac{11}{10} + \frac{105}{100}$

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

(A) $\frac{6}{10} + \frac{40}{100}$

(B) $\frac{185}{100} + \frac{95}{100}$

(C) $\frac{99}{100} + \frac{1}{100}$

(D) $\frac{9}{10} + \frac{115}{100}$

Name _____ Date _____

For Problems 4–6, use tenths or hundredths to find the missing fraction that makes the equation true.

i Show your thinking.

4 $\frac{5}{10} + \underline{\hspace{2cm}} = \frac{65}{100}$

5 $\underline{\hspace{2cm}} + \frac{6}{10} = \frac{10}{10}$

6 $\frac{15}{10} + \frac{5}{100} = \underline{\hspace{2cm}}$

7 $\underline{\hspace{2cm}} + \frac{3}{10} = \frac{75}{100}$

8 Complete each addition expression so that the values are less than 1, equal to 1, and greater than 1.

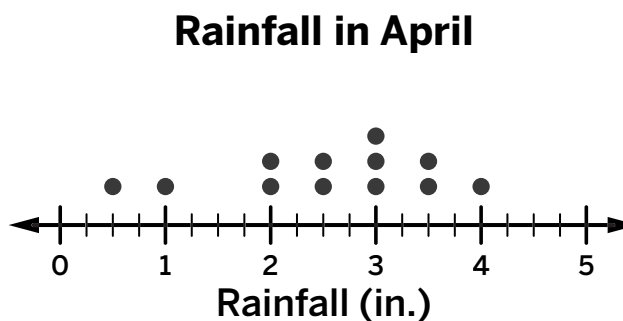
Less than 1	Equal to 1	Greater than 1
$\overline{10} + \overline{100}$	$\overline{10} + \overline{100}$	$\overline{10} + \overline{100}$

Additional Practice

3.15

- 1** The line plot shows the amount of rainfall, in inches, in a town during an 11-day period in April.

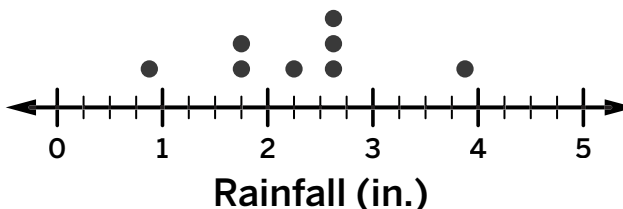
Determine the difference in rainfall between the day with the most amount of rainfall and the day with the least amount of rainfall.



answer: _____

- 2** Clare researched the amount of rainfall, by month, in different regions near her city. She plotted the data on the line plot shown. Add these values to the line plot.

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



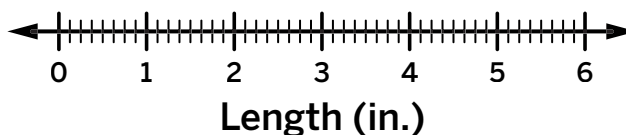
Use the information for Problems 3–5.

Jada measured a set of wooden rods to the nearest $\frac{1}{8}$ inch. Here is a list of the measurements:

$5\frac{3}{8}$ $2\frac{2}{8}$ $4\frac{5}{8}$ $1\frac{1}{8}$ $3\frac{4}{8}$

- 3** Plot the measurement data on the line plot.

Wooden Rod



Name _____ Date _____

i Show your thinking.

- 4 What is the combined length of the longest wooden rod and the shortest wooden rod?

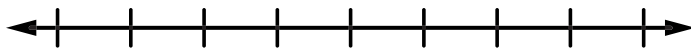
answer: _____

- 5 What is the difference in length between the longest wooden rod and the shortest wooden rod?

answer: _____

- 6 Complete the line plot.

Baseball Bat Lengths



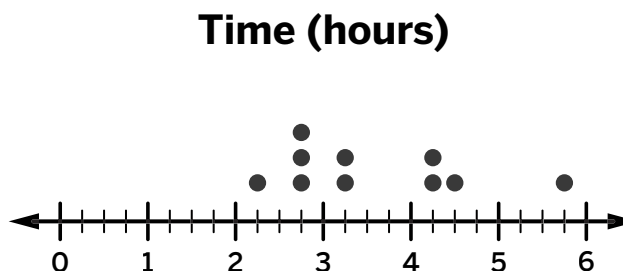
Number of Inches

Baseball Bat Lengths (Inches)	
Bat 1	$30\frac{1}{2}$
Bat 2	29
Bat 3	$29\frac{1}{2}$
Bat 4	30
Bat 5	$29\frac{1}{2}$
Bat 6	31

Additional Practice

3.16

- 1** A basketball coach had his players record the number of hours they spent practicing over the last week. The line plot on the right shows the amount of time in hours.



What is the difference between the most number of hours spent practicing and the least number of hours spent practicing?

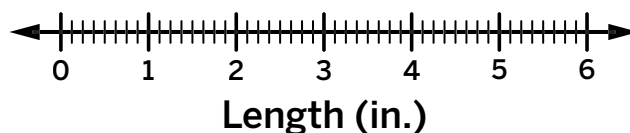
answer: _____

Use the information for Problems 2 and 3.

Diego measured the widths of different tree branches he collected while hiking. Here is a list of the measurements in inches:

$1\frac{3}{8}$ $4\frac{2}{8}$ $2\frac{5}{8}$ $2\frac{2}{8}$ $5\frac{6}{8}$ $3\frac{3}{8}$ $3\frac{3}{4}$ $4\frac{4}{8}$

- 2** Plot the measurement data on the line plot.



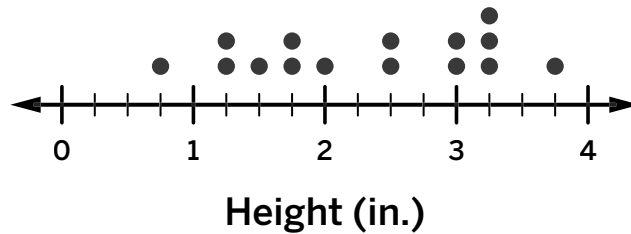
- 3** What is the total width, in inches, of tree branches that are between 3 and 6 inches wide?

i Show your thinking.

answer: _____

Name _____ Date _____

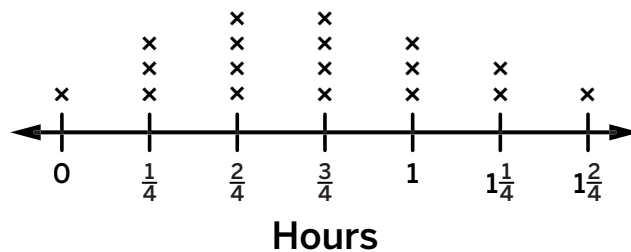
- 4 Priya measured the heights of plants and plotted the data on a line plot. What is the difference in height between the tallest and shortest plants Priya measured?



answer: _____

- 5 Students recorded the number of hours they spent reading in a day. The line plot below shows the amount of time in hours. What is the total amount of time read by students who read one hour or more?

Daily Reading Times



i Show your thinking. _____

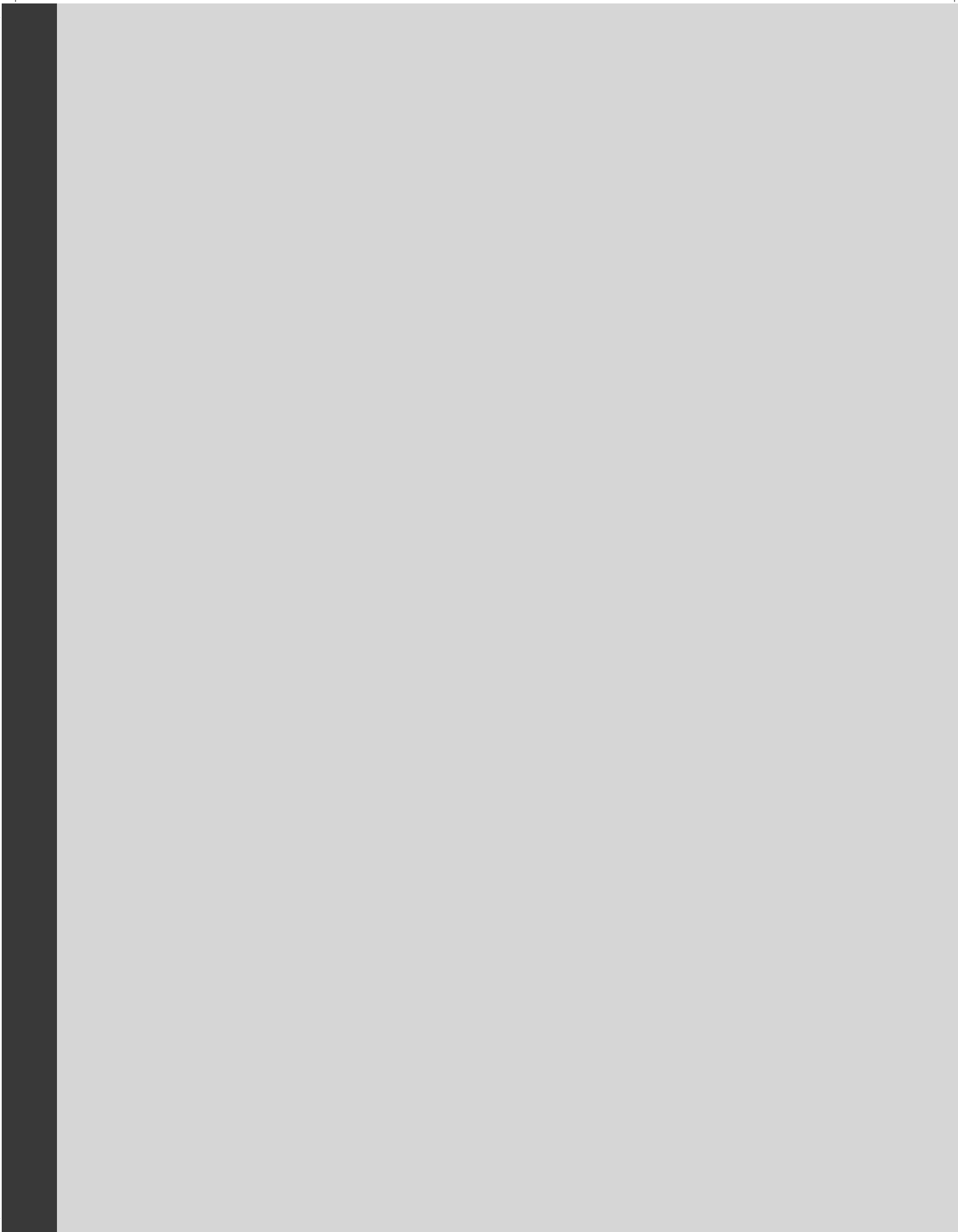
answer: _____

Grade 4

Unit 4

Additional Practice

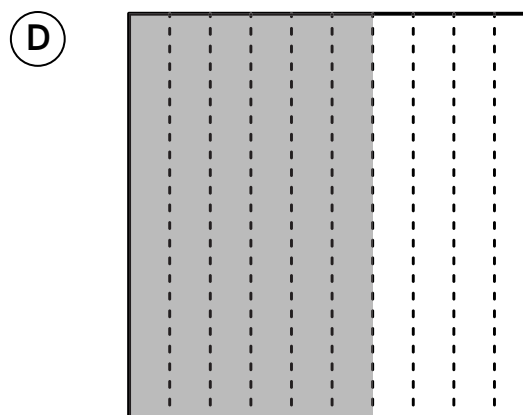
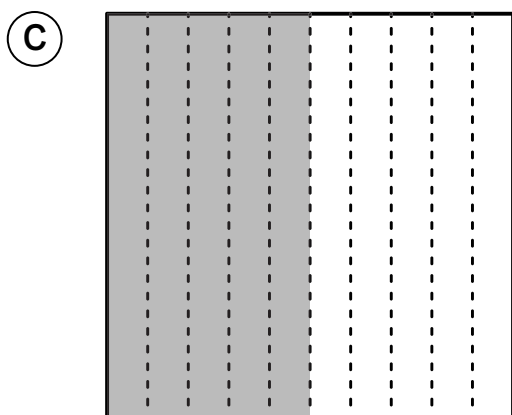
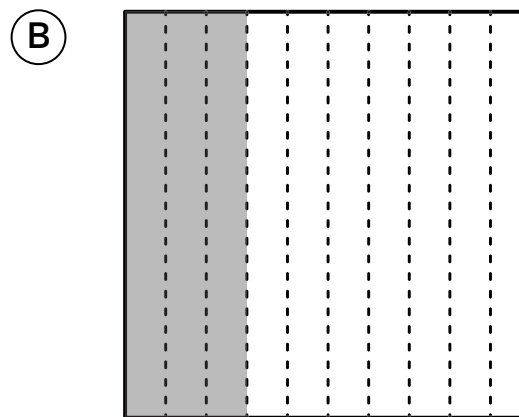
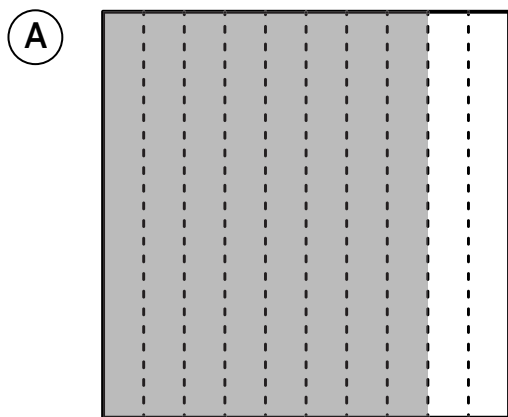
Practice Problems



Additional Practice

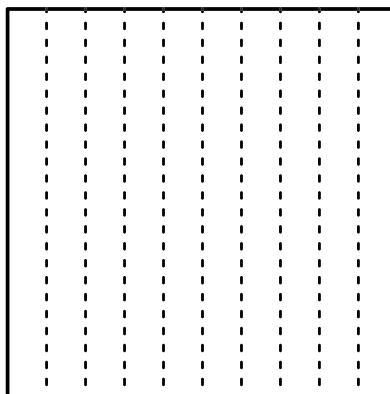
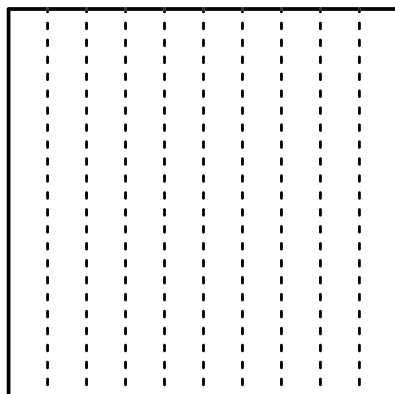
4.02

1 Each large square represents 1. Which diagram represents 0.5?



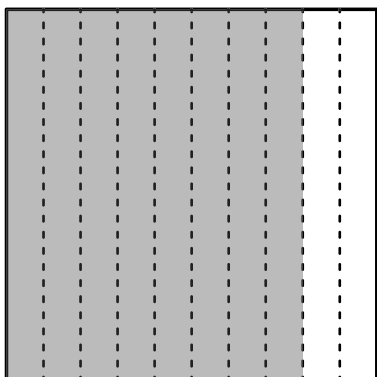
Each large square in Problems 2 and 3 represents 1. Use the given information to fill in the missing diagram or decimal.

2 Diagram:



decimal: 1.4

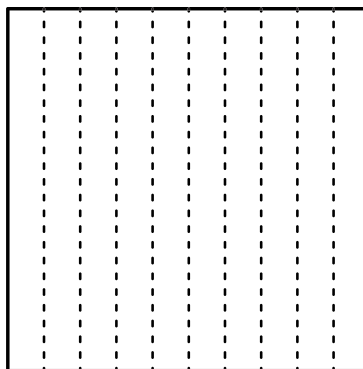
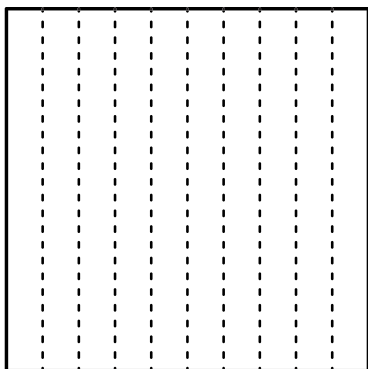
3 Diagram:



decimal: _____

4 Each large square represents 1. Use the given information to fill in the missing diagram and decimal.

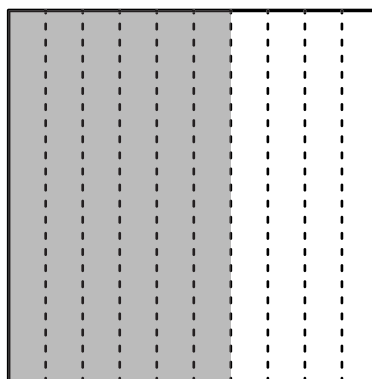
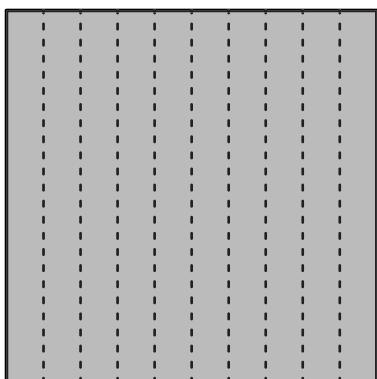
Diagram:



mixed number: $1 \frac{7}{10}$

decimal: _____

5 What fraction or mixed number does the diagram represent?



(A) $\frac{6}{10}$

(B) $\frac{4}{10}$

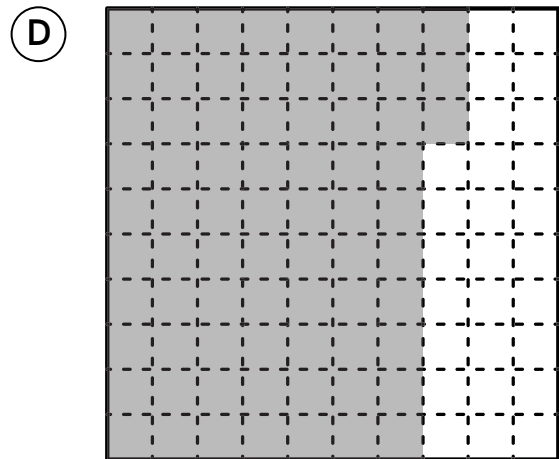
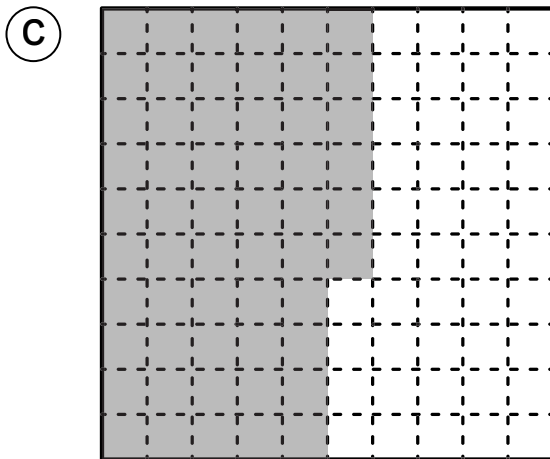
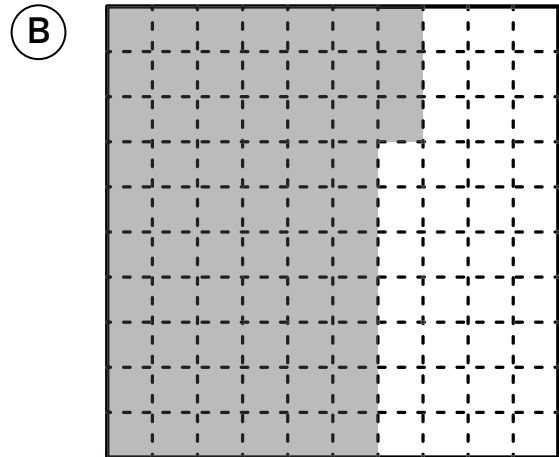
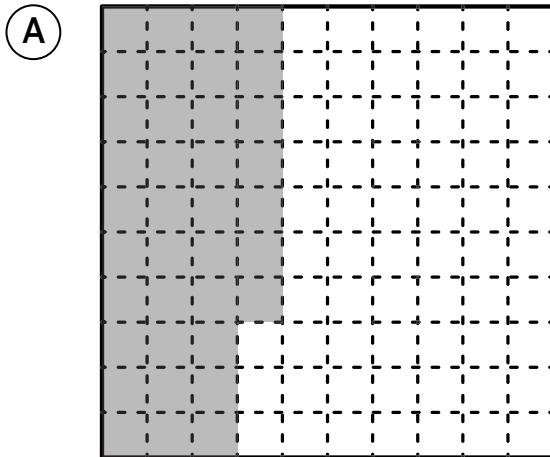
(C) $1 \frac{5}{10}$

(D) $1 \frac{6}{10}$

Additional Practice

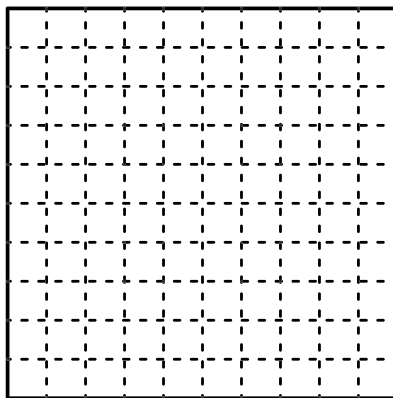
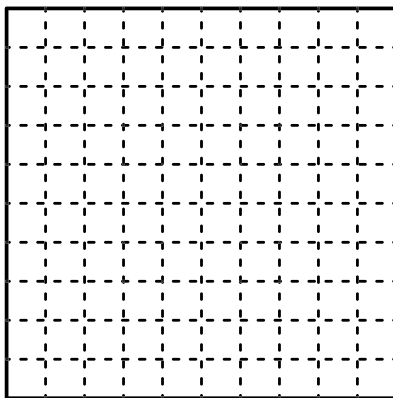
4.03

1 Each large square represents 1. Which diagram represents 0.73?



Each large square in Problem 2 represents 1. Use the given information to fill in the missing diagram.

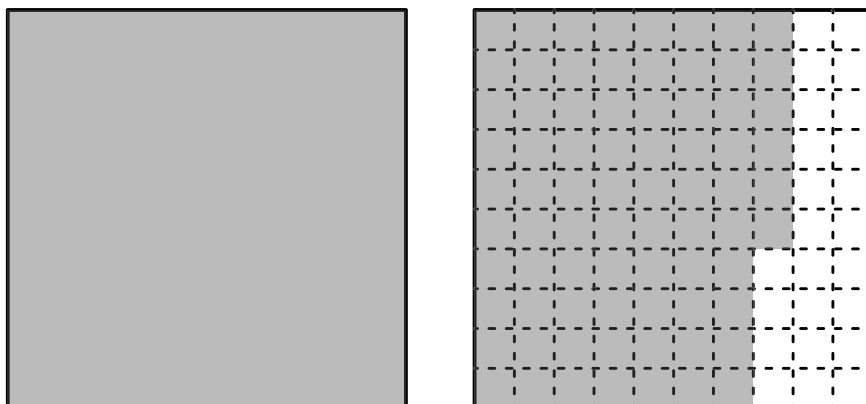
2 Diagram:



decimal: 1.36

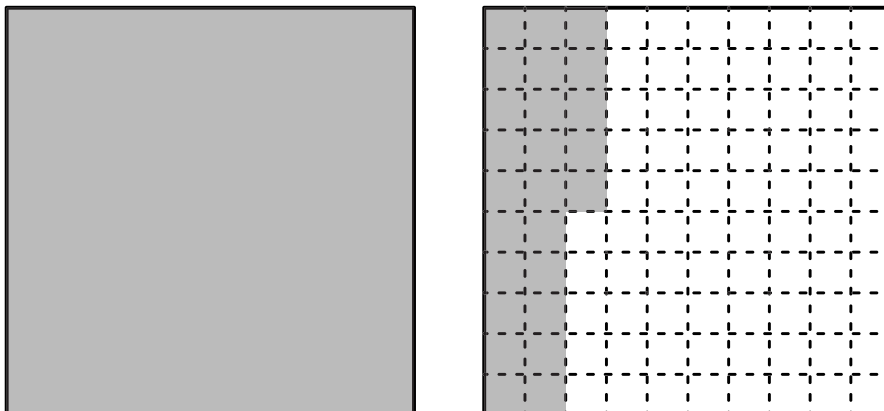
Name _____ Date _____

3 What mixed number does the diagram represent?



- (A) $1\frac{24}{100}$ (B) $1\frac{66}{100}$ (C) $1\frac{74}{100}$ (D) $1\frac{76}{100}$

4 What mixed number and decimal does the diagram represent?

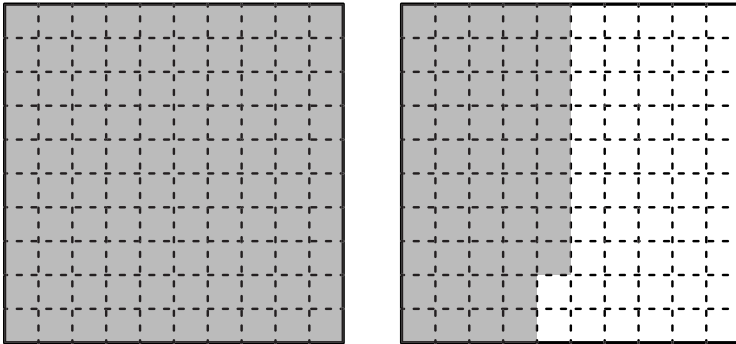


mixed number: _____ decimal: _____

Additional Practice

4.04

- 1 Each large square represents 1. Write a fraction or mixed number and a decimal that represent the diagram.



fraction or mixed number: _____

decimal: _____

- 2 Select *all* the numbers that are equivalent to $\frac{70}{100}$.

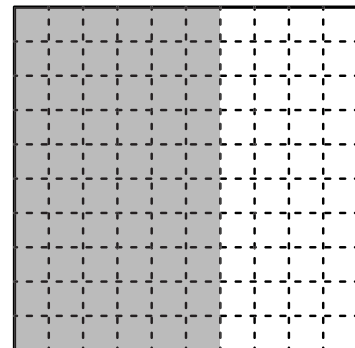
(A) 0.7

(B) $\frac{70}{10}$

(C) 0.70

(D) 7.5

- 3 The large square represents 1. Write 2 different fractions or mixed numbers and a decimal to represent the diagram.



fraction or mixed numbers: _____

decimal: _____

- 4 Select *all* the numbers that are equivalent to $\frac{4}{10}$.

(A) 0.5

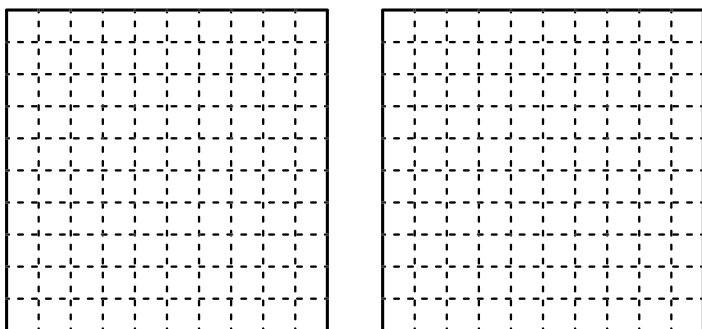
(B) 0.4

(C) $\frac{40}{100}$

(D) 0.04

- 5 Each large square represents 1. Han says that 0.3 and $\frac{3}{100}$ are equivalent. Do you agree with Han? Use the diagrams to help show your thinking.

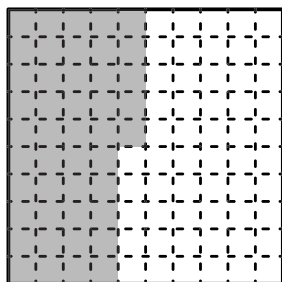
 Show or explain your thinking



answer: _____

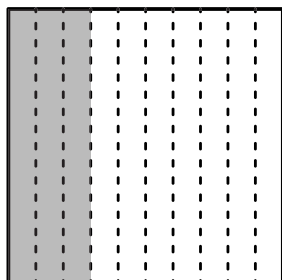
For Problems 6–8, match the diagram with the equation.

6



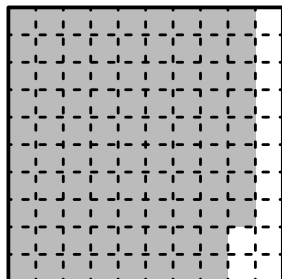
$$0.88 = \frac{88}{100}$$

7



$$0.45 = \frac{45}{100}$$

8



$$0.3 = \frac{3}{10}$$

Additional Practice**4.05**

- 1 Complete each comparison statement using $<$, $>$, or $=$.

Decimal	$<$, $>$, $=$	Decimal
0.07		0.7
1.25		1.20
0.42		0.56
0.5		0.50
0.99		1.02
2.5		2.50
0.75		0.70

- 2 Which digit will make the comparison statement true?

$$4.56 > 4.\underline{\quad}6$$

(A) 4

(B) 5

(C) 7

(D) 9

Name _____ Date _____

For Problems 3–5, complete the comparison using < or >.

3 0.45 _____ 0.54

4 1.32 _____ 1.78

5 2.75 _____ 2.7

For Problems 6 and 7, write a decimal that will make the comparison statement true.

6 $2.45 < \underline{\hspace{2cm}}$

7 $0.75 > \underline{\hspace{2cm}}$

Additional Practice**4.06**

1 Which set of decimals is ordered from *greatest to least*?

(A) 0.75, 0.8, 0.65

(B) 1.2, 1.1, 1.05

(C) 0.92, 0.29, 0.95

(D) 0.88, 0.92, 0.79

For Problems 2–5, use the digits 0–9 to fill in the blanks to make each comparison statement true.

2 $2.45 > 2.\underline{\quad}9$

3 $0.\underline{\quad}5 < 0.58$

4 $3.2 > 3.\underline{\quad}$

5 $1.\underline{\quad}5 > 1.05$

6 During a science fair, students measured and recorded the lengths of five different earthworms in inches. The recorded lengths are:

4.5 in.

3.75 in.

5.2 in.

4.1 in.

3.6 in.

Order the lengths from *greatest to least*.

Name _____ Date _____

For Problems 7 and 8, order the decimals from *least to greatest*.

 Show or explain your thinking.

7 0.75, 0.07, 0.8

answer: _____

8 0.72, 1.5, 0.95

answer: _____

Additional Practice**4.07****1** Which comparison statements are true? Select *all* that apply.

(A) $\frac{7}{10} > 0.75$

(B) $0.25 = \frac{25}{100}$

(C) $\frac{60}{100} < 0.7$

(D) $1.3 < 1\frac{40}{100}$

(E) $\frac{2}{5} > 0.45$

(F) $1.5 = 1\frac{50}{100}$

For Problems 2 and 3, create a number line to show the numbers in order from *least* to *greatest*. Then write the numbers in order from *least* to *greatest*.

i Show your thinking.

2 1.25 3.1 $2\frac{6}{10}$ 1.2 2.45

answer: _____

3 0.03 $\frac{3}{10}$ 0.45 $\frac{20}{100}$

answer: _____

Name _____ Date _____

For Problems 4–7, determine whether the comparison statement is true or false.

4 $0.25 = \frac{25}{100}$ _____

5 $\frac{60}{100} > 0.55$ _____

6 $0.72 > \frac{3}{4}$ _____

7 $\frac{9}{10} < 1.05$ _____

Additional Practice

4.08

- 1 Complete the table by determining how many thousands and hundreds it will take to make each number.

Number	How many thousands?	How many hundreds?
5,000		
7,000		
9,000		

- 2 How many hundreds are in 3,000? _____

- 3 Draw a diagram to represent 6,200.

 Draw

Name _____ Date _____

4 How many tens are in 6,000?

(A) 6

(B) 60

(C) 600

(D) 6,000

5 Complete the table by determining how many hundreds and tens it will take to make each number.

Number	How many hundreds?	How many tens?
2,000		
700		
12,000		
4,500		
35,000		
5,600		

6 How many hundreds are in 24,000?

(A) 2

(B) 24

(C) 240

(D) 2,400

Additional Practice

4.09

For problems 1–2, each number is represented in a place value mat. Write each number in standard form.

1

Hundred thousands	Ten thousands	Thousands	Hundreds	Tens	Ones
	● ● ●	● ●	● ● ●	● ● ● ● ● ●	

2

Hundred thousands	Ten thousands	Thousands	Hundreds	Tens	Ones
		● ●	● ● ●	● ● ● ● ●	● ● ●

3

Write $40,000 + 5,000 + 300 + 20 + 7$ in standard form.

4

Write 894,216 in expanded form.

5

Write $9 + 2,000 + 300,000 + 50,000 + 700$ in standard form.

Name _____ Date _____

Use the place value table for Problems 6 and 7.

Hundred thousands	Ten thousands	Thousands	Hundreds	Tens	Ones
		8	7	3	5

6 Which expression represents the value represented in the table?

- (A) $8,000 + 700 + 30 + 5$ (B) $8,000 + 600 + 30 + 5$
(C) $8,000 + 700 + 20 + 5$ (D) $8,000 + 700 + 30 + 3$

7 Which number is represented in the table?

- (A) 8,535 (B) 8,545
(C) 8,735 (D) 8,335

Use the place value table for Problems 8 and 9.

Hundred thousands	Ten thousands	Thousands	Hundreds	Tens	Ones
	7	5	9	4	0

8 Which number is represented in the table?

9 Write the expanded form of the number that is represented in the table.

Additional Practice

4.10

- 1 How are the values of the 7s in 274,819 and 47,306 related?

- 2 Each number is given in expanded form or in words. Write each number in standard form.

Expanded form or words	Standard form
Six hundred twenty-five thousand, four hundred eight	
$90,000 + 4,000 + 300 + 20 + 1$	
$200,000 + 30,000 + 5,000 + 400 + 60 + 7$	
Fifty-seven thousand, eight hundred ninety-two	
Three hundred twelve thousand, seven hundred fifteen	
$500,000 + 40,000 + 6,000 + 800 + 50 + 3$	

- 3 Which number is the same as $90,000 + 6,000 + 40 + 7$ in standard form?

- (A) 9,649 (B) 96,047
 (C) 96,407 (D) 96,470

Name _____ Date _____

For Problems 4–6, write the number in expanded form.

4 572,634

5 318,205

6 764,891

Additional Practice**4.11**

- 1** The value of the 5 in 358,614 is 10 times the value of the 5 in which number?

(A) 76,520 (B) 25,481
(C) 156,902 (D) 53,761

- 2** Which numbers have a 7 that is worth 10 times as much as the 7 in 49,372? Select *all* that apply.

(A) 78,621 (B) 17,450
(C) 74,913 (D) 36,742
(E) 427,890 (F) 91,756

- 3** Use the number bank to determine the mystery number.

85,472

39,617

257,483

52,814

Clues:

- The value of the 5 in the mystery number is 10 times as much as the 5 in 85,472.
- The value of the 2 in the mystery number is 10 times as much as the 2 in 58,214.

mystery number: _____**For Problems 4–7, use the numbers 965,000 and 590,415.**

- 4** What is the value of the 9 in each number? Complete each sentence.

In 965,000, the 9 has a value of _____.

In 590,415, the 9 has a value of _____.

Name _____ Date _____

- 5 Write a division equation to show the relationship between the values of the 9 in each number.

- 6 What is the value of the 5 in each number? Complete each sentence.

In 965,000, the 5 has a value of _____.

In 590,416, the 5 has a value of _____.

- 7 Write a multiplication equation to show the relationship between the values of the 5 in each number.

- 8 Use the number bank to determine the mystery number.

836,427

728,631

63,842

48,217

Clues:

- The value of the 8 in the mystery number is 10 times as much as the 8 in 63,842.
- The value of the 2 in the mystery number is 10 times as much as the 2 in 42,718.

mystery number: _____

Additional Practice**4.12**

- 1** Complete the table using $<$, $>$, or $=$.

Number	$<$, $>$, or $=$	Number
42,917		42,791
5,630		5,630
198,754		198,745
73,120		73,210
8,409		8,904
502,618		600,518
99,999		100,00

- 2** The Amazon River in South America has a length of 3,977 miles. The Nile River in Africa has a length of 4,132 miles. Compare the lengths of the rivers using $<$ or $>$.

$$4,132 \text{ _____ } 3,977$$

- 3** The Mariana Trench in the Pacific Ocean has a depth of 36,070 feet. The Tonga Trench in the South Pacific Ocean has a depth of 35,433 feet. Compare the depths of the ocean trenches using $<$ or $>$.

$$35,433 \text{ _____ } 36,070$$

Name _____ Date _____

For Problems 4–7, complete the comparison using $<$ or $>$.

4 9,215 _____ 8,942

5 3,678 _____ 3,789

6 45,120 _____ 32,508

7 22,315 _____ 22,310

Additional Practice

4.13

1 Which number is the *greatest*?

(A) 245,980

(B) 249,305

(C) 247,812

(D) 239,678

2 Order the numbers from *greatest* to *least*.

105,789 98,654 120,345 87,921 130,678 112,450

--	--	--	--	--	--

greatest

least

3 Order the numbers from *least* to *greatest*.

76,543 89,201 77,890 102,478 95,320 102,876

--	--	--	--	--	--

least

greatest

4 Which number is the *least*?

(A) 85,407

(B) 85,740

(C) 85,470

(D) 85,704

Name _____ Date _____

The table below shows the number of international tourists visiting four cities in 2023. Use the table for Problems 5 and 6.

City	Number of International Tourists
Atlanta	770,000
Dallas	660,000
Houston	890,000
Tampa	470,000

5 Which city had the *least* number of international tourists?

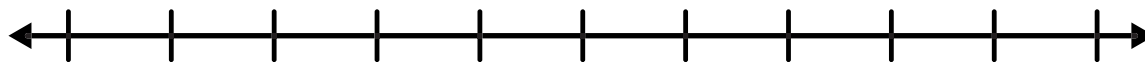
6 Which city has the *greatest* number of international tourists?

Additional Practice

4.14

For Problems 1 and 2, use the number line if it is helpful.

1 Is 673,392 closer to 670,000 or 680,000?



2 Round 468,458 to nearest 1,000.



3 Round 263,849 to the nearest 1,000.

- (A) 263,000
- (B) 263,800
- (C) 263,900
- (D) 264,000

4 Round 85,462 to the nearest 10,000.

- (A) 80,000
- (B) 85,000
- (C) 90,000
- (D) 86,000

For Problems 5–8, round the number to the given place.

5 Round 467,289 to the nearest 10,000. _____

6 Round 467,289 to the nearest 100. _____

Name _____ Date _____

7 Round 467,289 to the nearest 100,000. _____

8 Round 467,289 to the nearest 1,000. _____

For Problems 9–12, complete the statement.

9 Complete the statement using a number that is *greater* than 300,000.

_____ rounded to the nearest hundred thousand is 300,000.

10 Complete the statement using a number that is *less* than 750,000.

_____ rounded to the nearest ten thousand is 750,000.

11 Complete the statement using a number that is *less* than 200,000.

_____ rounded to the nearest hundred thousand is 200,000.

12 Complete the statement using a number that is *greater* than 920,000.

_____ rounded to the nearest ten thousand is 920,000.

Additional Practice**4.15****1** Round 76,842 to the nearest 10,000. _____**2** Round 76,842 to the nearest 100,000. _____**3** Round 76,842 to the nearest 100. _____**4** Round 76,842 to the nearest 1,000. _____**5** The table below shows the population of gray wolves in a region over several years. Round each population to the given place.

Year	Gray Wolf Population	Rounded to the Nearest 1,000	Rounded to the Nearest 10,000
1985	24,678		
1995	31,427		
2005	18,729		
2015	12,580		
2023	9,347		

Name _____ Date _____

The table shows the population of gray wolves for several countries for the year 2024. Round each population to the nearest 1,000.

Country	Gray Wolf Population	Rounded to the Nearest 1,000
Italy	3,307	
United States	14,780	
China	12,400	
Poland	1,886	

For Problems 6–8, round the number to the given place.

6 754,638

10,000: _____

100,000: _____

7 392,751

1,000: _____

10,000: _____

8 648,276

100: _____

1,000: _____

For Problems 9 and 10, select the number that completes the sentence.

9 729,432 rounded to the nearest _____ is 729,000.

(A) 100,000

(B) 10,000

(C) 1,000

(D) 100

10 45,648 rounded to the nearest _____ is 45,600.

(A) 100,000

(B) 10,000

(C) 1,000

(D) 100

Additional Practice**4.16****For Problems 1 and 2, determine the most reasonable estimate.**

1 $456,320 + 312,450$

(A) 700,000

(B) 770,000

(C) 600,000

(D) 800,000

2 $7,340 + 3,280$

(A) 10,000

(B) 9,000

(C) 9,500

(D) 12,000

For Problems 3 and 4, round the number to the given places.

3 629,543

1,000: _____**10,000:** _____

4 347,682

10,000: _____**100,000:** _____

5 472,845

10,000: _____**100,000:** _____

Name _____ Date _____

For Problems 6–10, estimate the sum.

6 $5,308 + 7,421$

 **Show or explain your thinking.**

6 $5,308 + 7,421$

answer: _____

7 $434,105 + 318,729$

answer: _____

8 $312,400 + 487,600$ _____

9 $3,998 + 1,950$ _____

10 $78,256 + 19,740$ _____

Additional Practice

4.17

Find the sum using the standard algorithm.

1 $3,684 + 6,348$

 Show your thinking.

answer: _____

Find the sum using the expanded form algorithm.

2 $8,643 + 4,348$

 Show your thinking.

answer: _____

Name _____ Date _____

3 What is the sum of $92,584 + 317,429$?

(A) 409,913

(B) 410,013

(C) 410,021

(D) 411,013

i Show your thinking.

For Problems 4 and 5, determine the sum using the standard algorithm.

i Show your thinking.

4 $45,372 + 9,618$

5 $56,743 + 38,156$

answer: _____

answer: _____

Additional Practice

4.18

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

1 $57,634 - 32,218$

 Show your thinking.

answer: _____

2 $375,924 - 269,715$

 Show your thinking.

answer: _____

3 Determine the difference.

$$345,672 - 128,459$$

- (A) 217,213 (B) 218,103 (C) 220,000 (D) 217,000

 Show your thinking.

Name _____ Date _____

For Problems 4 and 5, use the digits 8, 2, 4, 7, and 5 to write 2 five-digit numbers. Determine the sum and difference of the 2 numbers.

 Show your thinking.

4 addition expression:

answer: _____

5 subtraction expression:

answer: _____

6 Use the standard algorithm to determine the difference.

$$642,589 - 328,174$$

 Show your thinking.

answer: _____

Additional Practice

4.19

For Problems 1–3, use the standard algorithm to determine the difference.

 Show your thinking.

1 $62,145 - 20,702$

2 $925,408 - 768,295$

answer: _____

answer: _____

3 $95,025 - 51,389$

(A) 43,636

(B) 44,636

(C) 44,656


(D) 53,646

 Show your thinking.

Name _____ Date _____

- 4 The table shows the population of North Dakota in 2024 and 2020. Determine the difference in population between the two years.

Year	Population
2024	788,940
2020	779,563

 Show your thinking.

answer: _____

- 5 Use the standard algorithm to determine the difference.

$$785,000 - 472,300$$

 Show your thinking.

answer: _____

Additional Practice**4.20**

The table shows the top 3 US states for wild horse and burro population in 2024. Use the data from the table for Problems 1 and 2.

State	Wild Horse and Burro Population
Nevada	38,023
Wyoming	10,264
California	7,183

 **Show your thinking.**

- 1** Estimate the total wild horse and burro population for all the 3 states.

answer: _____

- 2** Determine the difference between the population in Nevada and the population in Wyoming.

answer: _____

Name _____ Date _____

- 3** Use the digits 9, 7, 2, and 6 to form two different four-digit numbers that will give the *greatest* possible sum. Then, determine the sum.

 Show your thinking. _____

answer: _____

- 4** In 2022, the estimated population of San Francisco was 873,965, and the estimated population of Sacramento was 523,680. Determine the difference between the populations.

 Show your thinking. _____

answer: _____

- 5** Use the digits 9, 7, 5, 1, and 4 to write two five-digit numbers. Find the difference between the two numbers.

 Show your thinking. _____

answer: _____

Additional Practice**4.21**

For Problems 1 and 2, use the standard algorithm to determine the value of the expression.

 Show your thinking.

1 $237,584 + 86,719$

2 $456,732 - 128,459$

answer: _____

answer: _____

For Problems 3 and 4, use the standard algorithm to determine the value of the expression.

 Show your thinking.

3 $42,768 + 25,934$

4 $47,625 - 23,487$

answer: _____

answer: _____

Name _____ Date _____

- 5** Use the digits 9, 5, 3, and 1 to write two different four-digit numbers that will give the greatest possible difference. Then, determine the difference.

 **Show your thinking.** _____

answer: _____

- 6** In 1970, the population of Denver, Colorado was 515,367. In 2020, the population was 727,211. Determine the difference between the populations in 2020 and 1970.

 **Show your thinking.** _____

answer: _____

- 7** Use the digits 9, 6, 3, and 5 to write two different four-digit numbers that will give the greatest possible sum. Then determine the sum.

 **Show your thinking.** _____

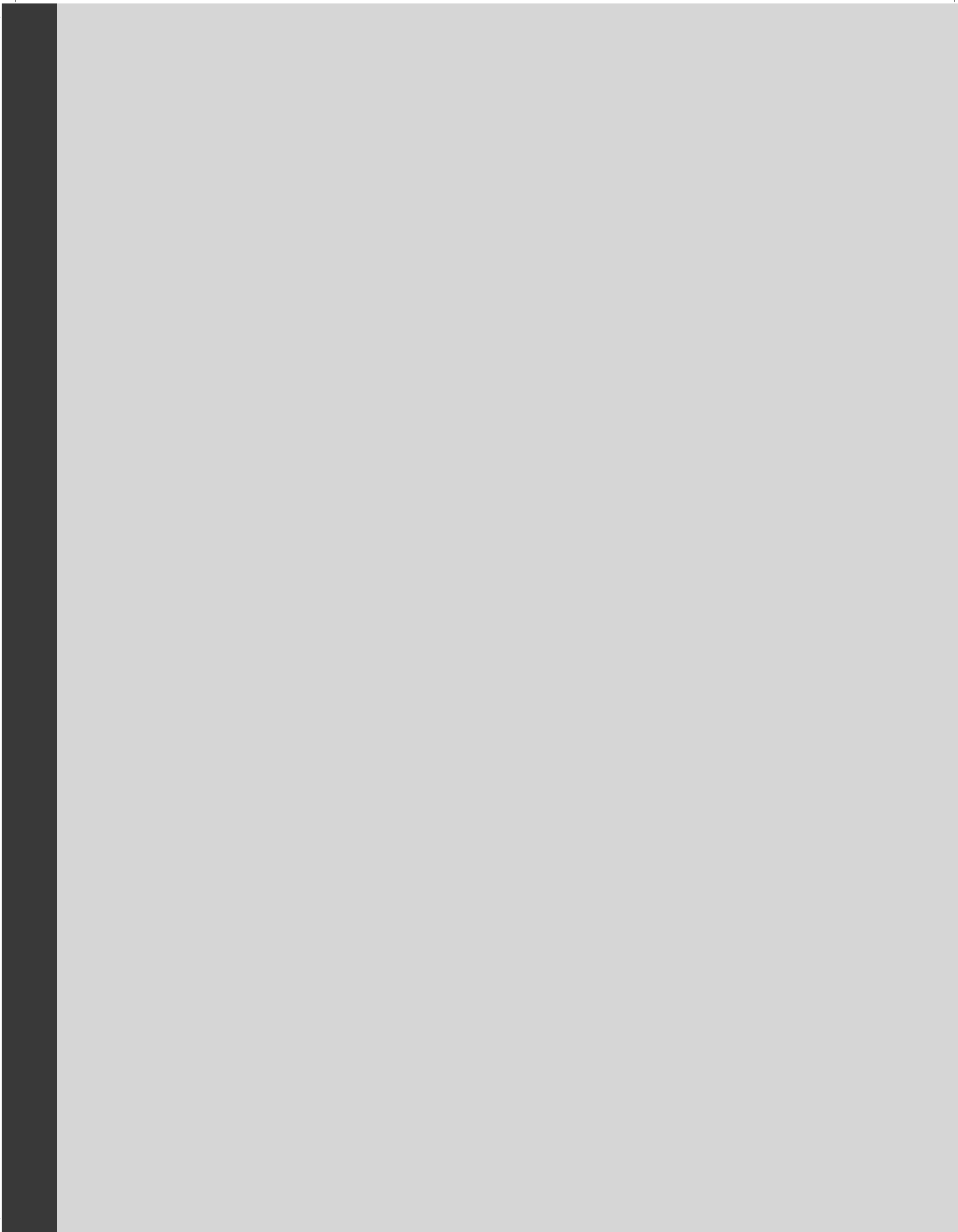
answer: _____

Grade 4

Unit 5

Additional Practice

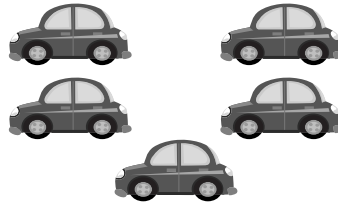
Practice Problems



Additional Practice

5.02

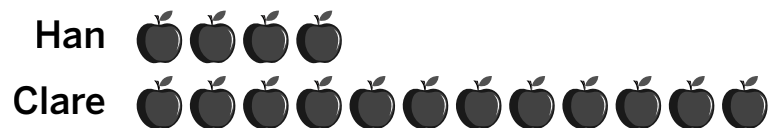
- 1 Diego has 5 toy cars. Priya has 6 times as many toy cars as Diego. How many toy cars does Priya have?



 Show your thinking.

answer: _____

- 2 Han has 4 apples. Clare has 12 apples. Complete the comparison statements.



Clare has _____ *times as many* apples as Han.

Clare has _____ *more* apples than Han.

Name _____ Date _____

3 There are 5 marbles in a bag. A box has 3 times as many marbles as the bag. How many marbles are in the box?

- (A) 10 marbles (B) 12 marbles
(C) 15 marbles (D) 8 marbles

4 An art teacher has 4 times as many pencils as pens. Complete the table to show 3 possibilities for the number of pencils and pens the art teacher has.

Pens	Pencils

5 Use the images of stickers. Which statement is true about the stickers?



- (A) There are 3 more moons than stars.
(B) There are 2 times as many hearts as moons.
(C) There are 4 times as many hearts as stars.

Additional Practice

5.03

- 1 Clare has 5 marbles. Diego has 3 times as many marbles as Clare. Draw a diagram to represent Clare's and Diego's marbles. How many marbles does Diego have?

 Draw _____

answer: _____

- 2 Which statement describes the number of apples that Han and Priya have?

Han 

Priya 

- (A) Priya has 2 times as many apples as Han.
(B) Han has 4 times as many apples as Priya.
(C) Priya has 3 times as many apples as Han.
(D) Han has 3 times as many apples as Priya.

- 3 There are 7 books in a small box. A large box has 2 times as many books as a small box.

Write an equation to represent the situation.

Name _____ Date _____

4 Write a statement that represents the equation $4 \times 6 = 24$.

5 Write a statement using “*times as many*” that describes Clare’s and Han’s hats.

Clare 

Han 

6 Write an equation that represents the situation in Problem 5.

Additional Practice

5.04

Use the tape diagram to complete Problems 1 and 2.



1 For each value of B, determine the value of L.

Value of B	3	7	12	15
Value of L				

2 Which equations could represent the relationship between the value of B and the value of L? Select *all* that apply.

- A $3 \times 6 = 18$
 B $7 \times 6 = 42$
 C $12 \times 6 = 72$
 D $15 + 6 = 90$
 E $6 + 6 = 12$

3 Draw a diagram to represent the story problem. Write an equation with a question mark to represent the unknown value and then solve the story problem.

Show your thinking. _____

Story Problem: A fox has 12 whiskers. A lion has 3 times as many whiskers as a fox. How many whiskers does the lion have?

diagram:

equation: _____

answer: _____

Name _____ Date _____

- 4 Draw a diagram to represent the story problem. Write an equation with a question mark to represent the unknown value and then solve the story problem.

 Show your thinking.

Story Problem: Han has 4 oranges. Diego has 6 times as many oranges as Han. How many oranges does Diego have?

diagram:

equation: _____

answer: _____

- 5 Write an equation to represent the story problem and then solve the story problem.

Priya has 15 apples. Clare has 4 times as many apples as Priya. How many apples does Clare have?

equation: _____

answer: _____

- 6 Write an equation to represent the story problem and then solve the story problem.

A classroom has 6 tables. Each table can seat 5 times as many students as each desk. How many students can be seated at the tables?

equation: _____

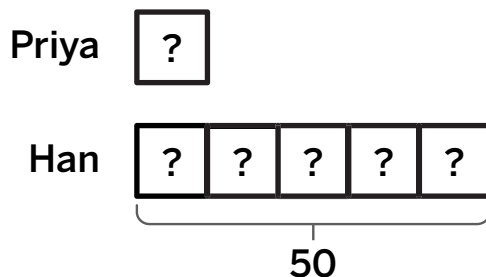
answer: _____

Additional Practice

5.05

- 1 Priya and Han baked cookies. Han baked 50 cookies. Which equations represent the situation? Select *all* that apply.

diagram:



- (A) $5 \times ? = 10$ (B) $? \times 5 = 50$
- (C) $50 \div 5 = ?$ (D) $10 \times 5 = ?$

Use the information for Problems 2 and 3. Clare and Diego practiced the piano. Diego practiced for 36 minutes. Clare practiced for 9 minutes.

- 2 Draw a diagram to compare the minutes Clare and Diego practiced the piano.

Draw

- 3 Write a statement using “times as many” to compare the minutes Clare practiced to the minutes Diego practiced.

Name _____ Date _____

Use the story problem for Problems 4–6. Han has 5 times as many trading cards as Diego. Diego has 12 trading cards. How many trading cards does Han have?

- 4** Write 1 multiplication equation to represent the story problem. Use a question mark to represent the unknown value.

- 5** Write 1 division equation to represent the story problem. Use a question mark to represent the unknown value.

- 6** Solve the story problem to determine the unknown value.

i Show your thinking. _____

answer: _____

Use the information for Problems 7–9. Jada read 90 pages of a book, which is 6 times as many pages as Clare read.

- 7** Write 1 multiplication equation to show the comparison. Use a question mark for the unknown value.

- 8** Write 1 division equation to show the comparison. Use a question mark for the unknown value.

- 9** How many pages did Clare read?

Additional Practice**5.06** **Show your thinking.**

- 1** The local bookstore received 15 mystery books. They received 6 times as many fantasy books. How many more fantasy books than mystery books did the bookstore receive?

(A) 60**(B)** 75**(C)** 90**(D)** 105

- 2** Clare collected 72 pencils for a school supply drive. She collected 9 times as many pencils as Han. How many pencils did Clare and Han collect altogether?

answer: _____

Use the information for Problems 3–6.**Priya baked 96 cookies last weekend. This is 6 times as many cookies as Diego baked.**

- 3** Draw a diagram to represent the situation.

 **Draw**

Name _____ Date _____

- 4 Priya says, "To determine how many cookies Diego baked, I can use multiplication." Write an equation to represent Priya's thinking.

- 5 Diego says, "To determine how many cookies I baked, I can use division." Write an equation to represent Diego's thinking.

 **Show your thinking.**

- 6 Determine total number of cookies Priya and Diego baked altogether.

answer: _____

- 7 Han's cousin went to the market to buy fruit. He spent \$3 on bananas and 4 times as much on apples. How much did he spend in total?

answer: _____

Additional Practice**5.07**

Use the information for Problems 1–4.

At a charity event, the lemonade stand earned \$18. The popcorn stand earned 5 times as much money as the lemonade stand. Last year, the lemonade stand earned 2 times as much money as it did this year, and the popcorn stand earned 3 times as much money as it did this year.

- 1 How much money did the popcorn stand earn this year?

 Show your thinking.

answer: _____

- 2 Which expression could be used to determine how much money the lemonade stand earned last year?

(A) 18×3 (B) 18×2 (C) 18×5 (D) 18×6

- 3 How much more money did the popcorn stand earn last year than this year?

 Show your thinking.

answer: _____

Name _____ Date _____

- 4 Priya collected 81 marbles in a game. This was 9 times as many marbles as Han collected. How many more marbles did Priya collect than Han?

 Show your thinking.

answer: _____

- 5 On Monday, Diego picked 7 apples from a tree. On Tuesday, he picked 5 times as many apples as he did on Monday. How many apples did Diego pick on Monday and Tuesday combined?

 Show your thinking.

answer: _____

Additional Practice

5.08

1 Which measurement is the *shortest*?

(A) 5 meters

(B) 500 centimeters

(C) 50 centimeters

(D) 50 meters

2 The Eiffel Tower in France stands 330 meters tall. What is the height of the Eiffel Tower in centimeters?

3 Which is longer — 5,000 centimeters or 5 meters?
Explain your thinking.

4 Which is longer — 75 centimeters or 1 meter?
Explain your thinking.

5 Clare grew a very large carrot in her garden that measured 57 centimeters long. Is her carrot shorter or longer than 1 meter?
Explain your thinking.

Name _____ Date _____

- 6** The table shows the heights of some famous bridges around the world in meters. Convert each measurement to centimeters.

Bridge	Measurement in meters (m)	Measurement in centimeters (cm)
Brooklyn Bridge	84	
Golden Gate Bridge	227	
Sydney Harbour Bridge	134	
Tower Bridge	65	
Akashi-Kaikyo Bridge	282	

- 7** How can you determine how many centimeters are in 3 meters?

Additional Practice**5.09**

- 1 Complete the table with the missing lengths in meters.

Kilometers (km)	Meters (m)
3	
7	
$2\frac{1}{2}$	
12	
20	
$5\frac{1}{2}$	

- 2 Jada says 500 meters is longer than 5 kilometers. Do you agree or disagree with Jada?

For Problems 3–7, use mental math to determine the value of the expression.

3 $6 \times 100 =$ _____

4 $6 \times 1,000 =$ _____

5 $15 \times 100 =$ _____

6 $15 \times 1,000 =$ _____

7 $25 \times 1,000 =$ _____

Name _____ Date _____

8 How many meters are in 9 kilometers?

A 900 meters

B 9,000 meters

C 90 meters

D 90,000 meters

9 Diego ran 12 kilometers. How many meters did Diego run?

10 How many meters are in 8 kilometers?

A 80 meters

B 800 meters

C 8,000 meters

D 80,000 meters

11 How can you determine how many meters are in 25 kilometers?

Additional Practice**5.10**

- 1** Determine whether each comparison statement is *true* or *false*. Place a check mark in the correct column.

Comparison Statement	True	False
10 meters = 1,000 centimeters		
25,000 centimeters < 250 meters		
500 meters < $\frac{1}{2}$ kilometer		
9,000 meters > 8 kilometers		
2 kilometers > 3,000 meters		

For Problems 2–6, complete the comparison statement using <, >, or =.

- 2** $3\frac{1}{2}$ meters _____ 350 centimeters
- 3** 2 kilometers _____ 20,000 meters
- 4** 25,000 centimeters _____ 250 meters
- 5** 3 meters _____ 3,000 centimeters
- 6** 70,000 meters _____ 7 kilometers

Additional Practice

5.11

 Show your thinking.

- 1** Priya jumped 7 yards in a long jump competition. Clare jumped 20 feet in the same event. Who jumped farther?

answer: _____

- 2** A painting in a museum is $3\frac{1}{2}$ feet tall. How tall is the painting in inches?

answer: _____

- 3** An anaconda, one of the world's largest snakes, can grow to be 8 yards long. What is 8 yards in feet?

answer: _____

Name _____ Date _____

4 A basketball rolled 6 yards. Which expression could be used to determine how far the basketball rolled in feet?

(A) 6×3

(B) $6 \div 3$

(C) 6×12

(D) $6 \div 12$

5 Complete the table with the missing lengths in feet and inches.

Yards (yd)	Feet (ft)	Inches (in.)
2		
5		
$\frac{2}{3}$		
$6\frac{2}{3}$		

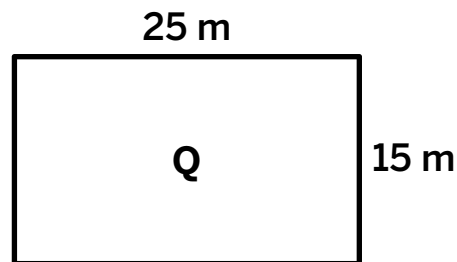
6 Complete the conversion statement.

12 yards = _____ feet

Additional Practice

5.12

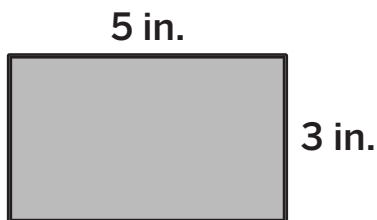
- 1 Select *all* the expressions that represent the perimeter of Rectangle *Q* given below.



- (A) $2 \times (25 + 15)$
 (B) $(25 + 25) \times 2$
 (C) 15×25
 (D) $25 + 15 + 25 + 15$
 (E) $(15 + 25) \times 2$
 (F) 40×2

i Show your thinking.

- 2 Determine the perimeter of the figure.



perimeter: _____

For Problems 3–5, use the table for Rectangle *P*.

Rectangle <i>P</i>	
Length	12
Width	6
Perimeter	36

Name _____ Date _____

- 3 Rectangle T has a length and width that are 3 times the length and width of Rectangle P . What is the length, width, and perimeter of Rectangle T ?

Rectangle T	
Length	
Width	
Perimeter	

- 4 Complete the statement:
The perimeter of Rectangle T is _____ the perimeter of Rectangle P .
- 5 Determine the perimeter of the rectangle shown in *feet*.

i Show your thinking.



answer: _____

- 6 Draw a rectangle that has a perimeter of 48 units and one side length that is 2 times as long as the other. Label the side lengths.

i Show your thinking.

Rectangle P	
Length	
Width	
Perimeter	

Additional Practice**5.13**

- 1 Complete the table with the missing number of milliliters or liters.

Liters (L)	Milliliters (mL)
5	
	2,000
15	

For Problems 2–6, complete the comparison statement using $<$, $>$, or $=$.

- 2 500 milliliters _____ 5 liters
- 3 15 milliliters _____ 2 liters
- 4 100 liters _____ 100,000 milliliters
- 5 3,500 milliliters _____ 3 liters
- 6 8,000 milliliters _____ 10 liters

 **Show your thinking.**

- 7** Han filled two cups with water. The first cup held 672 milliliters, and the second cup held 189 milliliters. Does Han have more or less than 1 liter of water in total?

answer: _____

- 8** Shawn has 4 containers, each holding a different amount of juice. Order the containers from *least* to *greatest* amount of juice.

Container A: $\frac{1}{2}$ as much juice as Container D

Container B: 4 times as much juice as Container C

Container C: 600 milliliters

Container D: 3 liters

_____ , _____ , _____ , _____
least

greatest

Additional Practice

5.14

- 1 A kangaroo rat is about 70 grams. A pygmy shrew is about 3 grams. Which weighs more — 8 kangaroo rats or 40 pygmy shrews?

 Show your thinking.

answer: _____

For Problems 2–5 use the information on the cards.

Squirrel – 500 g	Monkey – 15 kg	Bat – 15 g	Hedgehog – 200 g
----------------------------	--------------------------	----------------------	----------------------------

- 2 Which weighs more — 2 squirrels or 50 bats?

 Show your thinking.

answer: _____

Name _____ Date _____

3 Which group of animals weighs the *least*?

(A) 3 squirrels

(B) 1 monkey

(C) 1,000 bats

(D) 5 hedgehogs

4 Which group of animals weighs the *most*?

(A) 4 squirrels

(B) 1 monkey

(C) 500 bats

(D) 10 hedgehogs

5 Which weighs more — 10 monkeys or 10,000 bats?

i Show your thinking.

answer: _____

Additional Practice**5.15**

The table shows the ingredients for a smoothie. Use the table for Problems 1–5.

- 1 Complete the table with the missing numbers of pounds or ounces.

Ingredient	Pounds (lb.)	Ounces (oz.)
bananas	$1\frac{1}{4}$	20
blueberries	$\frac{1}{2}$	
almond milk		12
break yogurt	1	

- 2 The smoothie also requires peanut butter. The weight of the bananas is 5 times the weight of the peanut butter. How many ounces of peanut butter are needed?

 Show your thinking.

answer: _____

Name _____ Date _____

3 There are _____ as many ounces of blueberries as Greek yogurt.

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

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

(C) $\frac{3}{4}$

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

4 There are _____ as many ounces of almond milk as Greek yogurt.

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

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

(C) $\frac{5}{6}$

(D) $\frac{3}{2}$

5 There are _____ as many ounces of almond milk as blueberries.

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

(B) $\frac{5}{4}$

(C) $\frac{3}{5}$

(D) 2

6 A recipe includes flour and sugar. Priya uses 4 pounds of flour. The weight of the flour is 3 times the weight of the sugar that Priya needs. How many ounces of sugar does Priya need?

i Show your thinking.

answer: _____

Additional Practice**5.16**

For Problems 1 and 2, complete the comparison statement using $<$, $>$, or $=$.

1 $3\frac{1}{4}$ hours _____ 200 minutes

2 $5\frac{1}{2}$ hours _____ 330 minutes

Use the information for Problems 3 and 4

Monday: Clare read for $\frac{1}{2}$ hours.

Tuesday: Clare read for $2\frac{1}{2}$ hours.

3 Complete the statement:

Clare read _____ times as long on Tuesday as she did on Monday.

4 How long did Clare read in all? Write your answer in 2 ways, as a number of minutes, and as a number of hours.

 Show your thinking.

minutes: _____ hours: _____

Name _____ Date _____

- 5 Diego and his sister completed their weekly household tasks. Complete the table with the missing numbers of hours or minutes.

Task	Hours	Minutes
wash dishes	$1\frac{3}{4}$	
vacuum		30
fold laundry	$\frac{1}{4}$	
organize closet	2	

For Problems 6 and 7, write the number seconds for each.

6 15 minutes = _____ seconds

7 45 minutes = _____ seconds

Additional Practice

5.17

 Show or explain your thinking.

1 Would you rather drink 500 milliliters of juice or 1 liter of juice?

I want (*more or less*) _____,
so I would rather drink _____.

2 Would you rather read a book for 900 seconds or 14 minutes?

I want (*more or less*) _____,
so I would rather read for _____.

3 Which measurement is the *shortest*?

(A) 84 inches

(B) 6 feet

(C) $3\frac{1}{2}$ yards

(D) 12 feet

Name _____ Date _____

4 Would you rather have 4,200 grams of apples or 3 kilograms of apples?

 Show your thinking.

I want (*more or less*) _____,
so I would rather have _____ of apples.

5 Which measurement is the *longest*?

(A) 2 kilometers

(B) 20 meters

(C) 18,000 centimeters

(D) 1,500 meters

6 Match the measurements in Column A and Column B.

Column A

1 kilometer

5 meters

1 meter

Column B

100 centimeters

100,000 centimeters

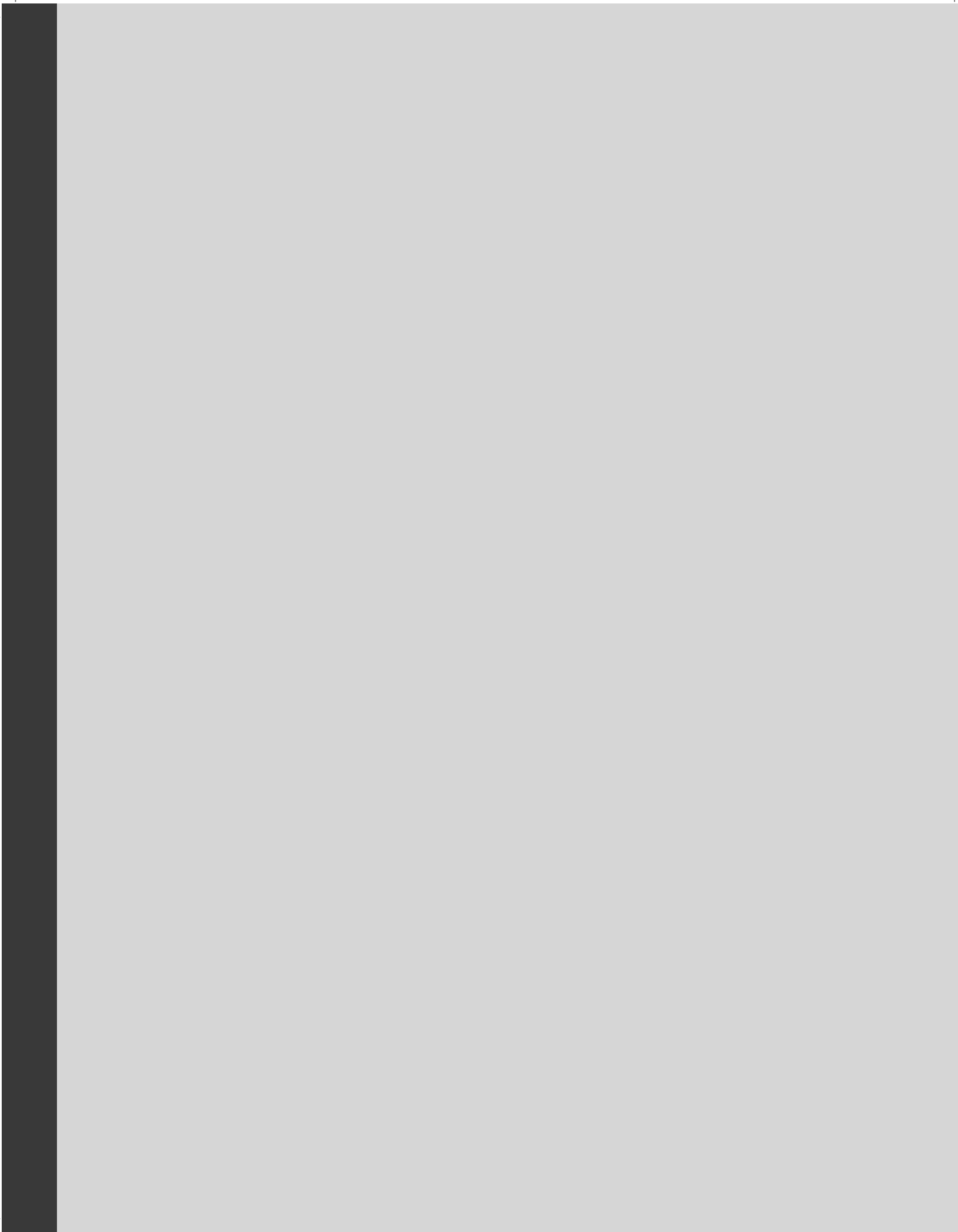
500 centimeters

Grade 4

Unit 6

Additional Practice

Practice Problems



Additional Practice

6.02

- 1** Diego is filling bags with apples. Each bag holds 25 apples. If he fills 7 bags, how many apples does he have?

 Show or explain your thinking.

answer: _____

- 2** Clare is reading a book. Each chapter has 12 pages. If she reads 9 chapters, how many pages does she read altogether?

 Show or explain your thinking.

answer: _____

Name _____ Date _____

- 3** Priya is buying packs of pencils. Each pack has 24 pencils. If she buys 7 packs, how many pencils does she have in total?

 **Show or explain your thinking.**

answer: _____

- 4** A farmer has 9 baskets. Each basket has 13 apples. Which expressions could the farmer use to determine how many apples he has? Select *all* that apply.

- A** 9×13
- B** $13 + 13 + 13 + 13 + 13 + 13 + 13 + 13 + 13$
- C** $(9 \times 10) + (9 \times 3)$
- D** $130 + 20$
- E** 13×90

Additional Practice

6.03

1 Complete the area diagram to determine the value of 7×341 .

i Show your thinking.



answer: _____

2 Complete the area diagram to determine the value of 3×895 .

i Show your thinking.



answer: _____

3 Complete the area diagram to determine the value of $4 \times 7,693$.

i Show your thinking.



answer: _____

Name _____ Date _____

For Problems 4 and 5, use an area diagram to determine the value of the expression.

 Show your thinking.

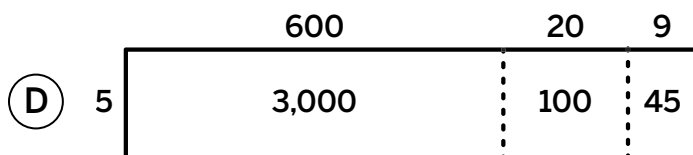
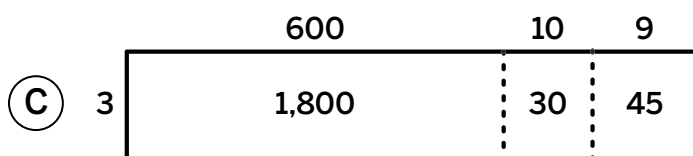
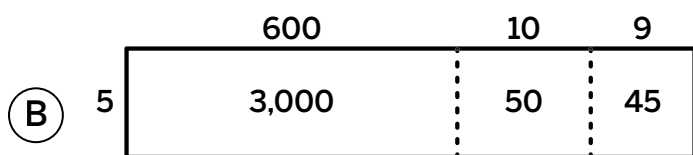
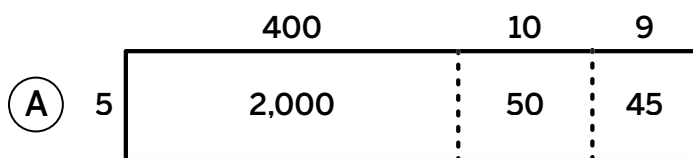
4 3×194

answer: _____

5 $1,473 \times 5$

answer: _____

6 Which area diagram could be used to determine the value of 5×619 ?



Additional Practice

6.04

1 Which is the best estimate for 679×4 ?

- (A) 1,800 (B) 1,400 (C) 2,800 (D) 3,500

2 Determine the value of 679×4 .

 Show your thinking.

answer: _____

3 Which is the best estimate for 282×6 ?

- (A) 1,200 (B) 1,800 (C) 2,500 (D) 18,000

4 Determine the value of 282×6 .

 Show your thinking.

answer: _____

5 Which is the best estimate for 745×5 ?

- (A) 350 (B) 400 (C) 3,500 (D) 4,000

Name _____ Date _____

6 Determine the value of 745×5 .

i Show your thinking.

answer: _____

7 Determine the value of $3,631 \times 9$.

i Show your thinking.

answer: _____

8 Estimate the product of 7×912 .

i Show your thinking.

answer: _____

Additional Practice

6.05

For Problems 1-3, determine the product using any strategy.

 Show your thinking.

1 905×4

answer: _____

2 $2,835 \times 7$

answer: _____

3 $7,128 \times 9$

answer: _____

Name _____ Date _____

4 Determine the product 496×5 using partial products.

i Show your thinking.

answer: _____

5 Determine the product 814×3 using partial products.

i Show your thinking.

answer: _____

6 What is the product? $9,103 \times 5$

(A) 45,515

(B) 46,515

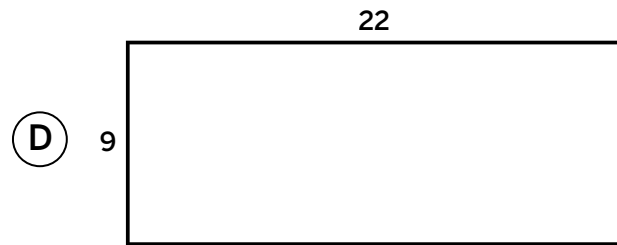
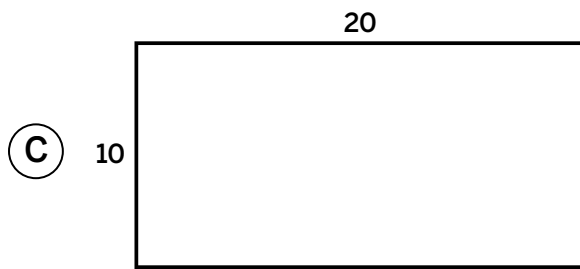
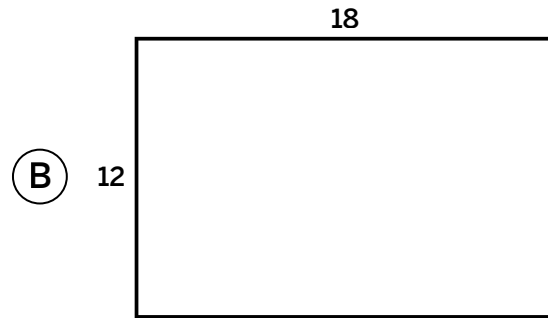
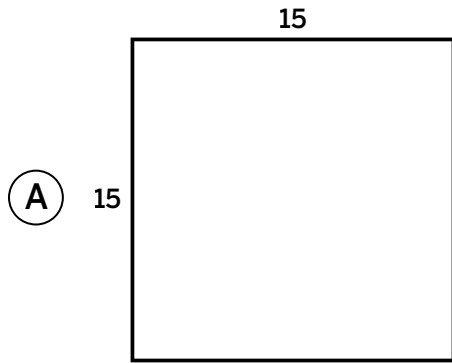
(C) 44,515

(D) 43,515

Additional Practice

6.06

- 1 Han's dad is building a rectangular patio with 4 different size options. Which patio has the *greatest* area?



- 2 Priya has a vegetable garden that is 12 feet by 30 feet. Diego has a vegetable garden that is 16 feet by 22 feet. Who has a larger vegetable garden? Explain your thinking.

Name _____ Date _____

- 3** Clare and her friend have rectangular swimming pools at their houses. Clare's pool is 18 feet by 14 feet. Her friend's pool is 16 feet by 16 feet. Which pool has a larger area?

i Show your thinking.

answer: _____

- 4** There are 2 gardens at Diego's apartment complex. He wants to plant flowers in the larger garden. The first garden is 25 meters by 10 meters. The second garden is 20 meters by 15 meters. Which garden should he plant flowers in?

i Show your thinking.

answer: _____

Additional Practice

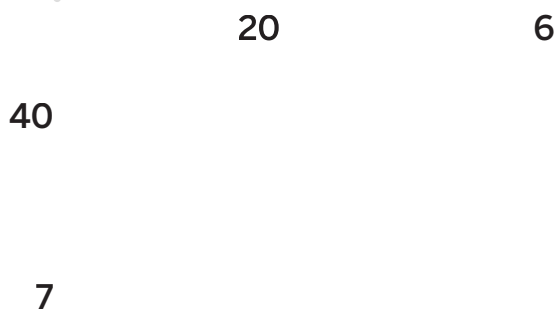
6.07

1 When using an area diagram, which expressions could be used to determine the value of 29×41 ? Select *all* that apply.

- (A) 2×4 (B) 9×1 (C) 20×40 (D) 9×40 (E) 4×9 (F) 20×1

2 The area diagram represents 47×26 . Complete the diagram to show the partial products. Then determine the product.

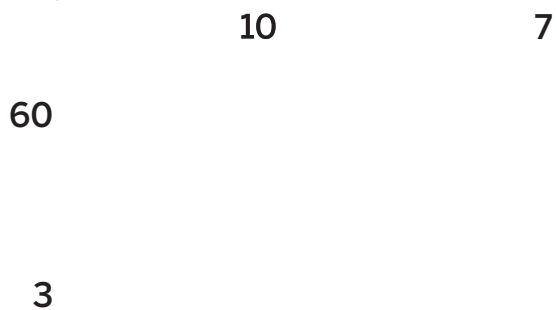
i Show your thinking. _____



answer: _____

3 The area diagram represents 63×17 . Complete the diagram to show the partial products. Then determine the product.

i Show your thinking. _____



answer: _____

Name _____ Date _____

For Problems 4 and 5, determine the product using an area diagram. Include an expression or equation for each partial product.

 Show your thinking.

4 21×63

answer: _____

5 52×38

answer: _____

Additional Practice

6.08

For Problems 1 and 2, use partial products to determine the value of the expression.

 Show your thinking.

1 91×42

answer: _____


2 27×58

answer: _____

Name _____ Date _____

- 3** Estimate the product and then determine the exact answer. Use your estimate to determine whether your answer is reasonable.

$$86 \times 54$$

 **Show your thinking.**

estimate: _____

answer: _____

- 4** What is the product of 45×68 ?

(A) 2,060

(B) 3,006

(C) 3,100

(D) 3,060

Additional Practice

6.09

1 What is the product 824×3 ?


- (A) 2,172 (B) 2,472 (C) 2,450 (D) 2,400

2 Determine the product $1,374 \times 8$.

 Show your thinking.

answer: _____

3 Determine the product 38×42 .

 Show your thinking.

answer: _____

Name _____ Date _____

Use the information for Problems 4–6.

Priya is helping get items ready for craft sets at a craft fair. She needs to determine the amount of supplies needed to prepare for all of the sets.

Item	Amount for each craft set
String	124
Markers	236
Beads	348
Stickers	1,056

 Show your thinking.

4 How many stickers will Priya need to make 8 craft sets?

answer: _____

5 How many beads will Priya need to make 5 sets?

answer: _____

6 If Priya makes 9 sets, how many markers does she need?

(A) 2,070

(B) 2,130

(C) 2,367

(D) 2,124

Additional Practice

6.10

- 1 Write 1 related multiplication equation to represent the division equation $225 \div 9 = d$.

- 2 Han buys 275 balloons for a party. He wants to distribute them equally among 5 children. How many balloons does each child get?

i Show your thinking.

answer: _____

For Problems 3–5, write an equation to represent the problem, using the letter c for the unknown value. Then solve the problem.

i Show your thinking.

- 3 Diego collects 216 marbles and wants to divide them equally among 4 friends. How many marbles does each friend get?

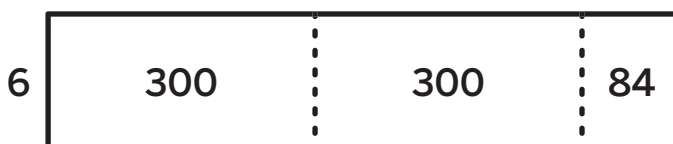
equation: _____ answer: _____

Additional Practice

6.11

- 1 The area diagram represents $684 \div 6$. Complete the diagram to determine the quotient.

i Show your thinking.



answer: _____

- 2 Use an area diagram to evaluate $936 \div 6$.

- (A) 156 (B) 136 (C) 316 (D) 301

i Show or explain your thinking.

Name _____ Date _____

3 Use an area diagram to evaluate $615 \div 5$.

(A) 101

(B) 123

(C) 151

(D) 95

i Show or explain your thinking.

4 Write a division equation to represent the problem, using a letter for the unknown value. Then solve the problem.

Diego is making a fence around a rectangular backyard. The backyard is 7 meters wide. He used 154 meters of fencing for the yard. How long is the yard?

i Show or explain your thinking.

equation: _____ answer: _____

Additional Practice**6.12**

- 1** Clare is sharing 3,168 beads equally among 8 friends. How many beads will each friend get?

(A) 384 (B) 396 (C) 400 (D) 406

i Show or explain your thinking.

- 2** Diego has 1,825 stickers. He divides them equally into 5 albums. How many stickers are in each album?

(A) 390 (B) 415 (C) 365 (D) 410

i Show or explain your thinking.

For Problems 3–5, determine the quotient.

i Show your thinking.

3 $495 \div 5$

answer: _____

Name _____ Date _____

 Show your thinking.

4 $948 \div 6$

answer: _____

5 $1,412 \div 2$

answer: _____

- 6** Han is planning a road trip with his friends to a national park. The park is 735 miles away. They want to drive the same number of miles each day and get there in 5 days. How many miles should they drive each day?

 Show your thinking.

answer: _____

Additional Practice

6.13

- 1 There are 735 volunteers working at a charity event. They are divided into 5 equal teams. How many volunteers are on each team?

(A) 145 (B) 147 (C) 150 (D) 155

 Show or explain your thinking.

- 2 A factory produces 4,320 toy cars and packs them equally into 9 large boxes. How many toy cars are in each box?

(A) 460 (B) 470 (C) 480 (D) 490

 Show or explain your thinking.

Name _____ Date _____

For Problems 3–5, use any strategy to determine the quotient.

i Show or explain your thinking.

- 3** A teacher has 168 pencils and puts them equally into 8 containers. How many pencils are in each container? Show or explain your thinking.

answer: _____

- 4** Clare has 360 beads and wants to organize them into 9 jars. How many beads will be in each jar? Show your thinking.

answer: _____

- 5** A library received 1,116 new books and arranged them equally onto 9 shelves. How many books are on each shelf?

answer: _____

Additional Practice

6.14

1 What is the value of $7,218 \div 9$?

(A) 788

(B) 792

(C) 796

(D) 802

 Show your thinking.

2 What is the value of $5,184 \div 8$?

(A) 642

(B) 648

(C) 652

(D) 664

 Show your thinking.

Name _____ Date _____

For Problems 3–6, determine the quotient using any strategy.

 Show your thinking.

3 $798 \div 6$

answer: _____

4 $924 \div 7$

answer: _____

5 $3693 \div 3$

answer: _____

6 $1468 \div 2$

answer: _____

Additional Practice

6.15

- 1 There are 432 people split evenly into 8 buses. Estimate how many people are on each bus.

(A) 45 (B) 50 (C) 750 (D) 100

 Show your thinking.

- 2 How many people are on each bus?

 Show your thinking.

answer: _____

- 3 A theater has 275 seats divided evenly into 5 rows. Estimate how many seats are in each row.

(A) 30 (B) 40 (C) 60 (D) 70

 Show your thinking.

Name _____ Date _____

4 How many seats are in each row?

i Show your thinking.

answer: _____

For Problems 5 and 6, estimate the quotient and then determine the exact answer.

i Show your thinking.

5 $545 \div 5$

estimate: _____

answer: _____

6 $8,488 \div 4$

estimate: _____

answer: _____

7 Use estimation to determine whether Diego's answer is reasonable. Write *yes* or *no*. Diego has 315 apples to pack into bags. Each bag holds 6 apples. Diego says he will need 40 bags. Is this reasonable?

i Show your thinking.

answer: _____

Additional Practice

6.16

1 Han has 3,672 baseball cards. He equally divided them into 9 boxes. How many baseball cards are in each box?

(A) 384

(B) 408

(C) 412

(D) 424

For Problems 2–3, choose 1 dividend, 1 divisor, 1 person, and 1 object from the table. You may use each dividend, divisor, person, and object more than once.

Dividend	Divisor	Person	Object
2,432	8	Clare	flowers
1,048	4	Diego	books

2 Using the dividend, divisor, person, and object you chose, create a division story problem.

3 Solve your problem.

Show your thinking.

answer: _____

Name _____ Date _____

4 Create a division story problem that could be solved using $4,560 \div 8$.

5 Solve your problem.

i Show your thinking.

answer: _____

Additional Practice**6.17**

- 1** A bakery is delivering 418 muffins to different cafes. Each box holds up to 8 muffins. Han thinks they need 52 boxes, while Diego says they need 53 boxes. Who do you agree with?

i Show your thinking.

answer: _____

- 2** A group of volunteers is packing 318 bottles of water into boxes. Each box can hold up to 5 bottles. Priya says they will need 63 boxes, while Clare says they will need 64 boxes. Who do you agree with?

i Show your thinking.

answer: _____

- 3** A store earned \$844 in sales. If the money is divided equally among 8 employees, how much does each employee receive?

i Show your thinking.

answer: _____

Name _____ Date _____

- 4 A bakery baked 938 cookies for an event. If each box packs up to 6 cookies, how many boxes will they need?

 Show your thinking.

answer: _____

- 5 A teacher has 675 markers and puts them into boxes with up to 8 markers. How many boxes are there?

 Show your thinking.

answer: _____

- 6 A farmer has 112 apples and wants to divide them into 5 baskets of equal size. How many apples can the farmer put in each basket?

(A) 21 apples (B) 22 apples (C) 23 apples (D) 24 apples

Additional Practice

6.18

- 1 A soccer tournament has 432 players. Each team will have 10 players. Any extra players will be added to some teams, so some teams will have 11 players. How many teams will have only 10 players?

(A) 41

(B) 43

(C) 44

(D) 46

 Show your thinking.

- 2 A soccer league has 250 players. Each team will have 7 players. Any extra players will be added to some teams, so some teams will have 8 players. How many teams will have 7 players, and how many teams will have 8 players?

 Show your thinking.

answer: _____

Name _____ Date _____

- 3** A camp has 825 campers. Each cabin will hold 8 campers. Any extra campers will be added to some cabins, so some cabins will have 9 campers. How many cabins will have 8 campers, and how many cabins will have 9 campers?

 **Show your thinking.** _____

answer: _____

- 4** A pet store has 573 fish. They place 7 fish in each tank. Some tanks will have 8 fish to hold the extra fish. How many tanks will have 7 fish and how many tanks will have 8 fish?

 **Show your thinking.** _____

answer: _____

Additional Practice

6.19

Use the situation for Problems 1–3.

A school needs 425 t-shirts for a field trip. Company A sells 30 t-shirts per package. Company B sells 55 t-shirts per package.

- 1 What is the *least* number of packages the school would need to order from Company A?

 Show your thinking.

answer: _____

- 2 What is the *least* number of packages needed from Company B?

 Show your thinking.

answer: _____

Name _____ Date _____

- 3** Company C sells larger packages, each containing 80 t-shirts. A student says, "If the school chooses Company C, it will need only 6 packages but will have the most leftover t-shirts." Do you agree with the student? Write yes or no.

i Show your thinking.

answer: _____

- 4** A bakery needs 428 cupcakes for an event. Company A sells 36 cupcakes in a box. Company B sells 55 cupcakes in a box. What is the *least* number of boxes needed from Company A?

(A) 10

(B) 11

(C) 12

(D) 13

- 5** A school is ordering 710 water bottles for a field day. Company A sells 50 water bottles per case. Company B sells 85 water bottles per case. What is the *least* number of cases needed from Company A?

(A) 12

(B) 13

(C) 14

(D) 15

Additional Practice**6.20**

- 1** A basketball league orders uniforms for 432 players. Each jersey costs \$7. Each pair of shorts costs \$4. Each player receives 1 jersey and 1 pair of shorts. What is the total cost of the jerseys and shorts? Explain your thinking.

(A) \$3,888 (B) \$4,752 (C) \$5,184 (D) \$5,616

i Show your thinking.

- 2** A sports club bought the same number of soccer balls for 5 years in a row. They spent \$1,125 on soccer balls in the first year. If each soccer ball costs \$9, how many soccer balls were purchased in 5 years?

i Show your thinking.

Step 1:

Step 2:

answer: _____

Name _____ Date _____

Use this situation for problems 3–4.

A bakery needs to package 264 muffins into boxes. Each box holds 8 muffins. Each box costs \$3 to package.

 Show your thinking.

3 How many boxes are packaged?

answer: _____

4 What is the total cost to package the boxes?

answer: _____

Use the situation for Problems 5–7.

A group of 275 students is going to a concert. Each ticket costs \$8. Each student also gets a snack that costs \$4.

 Show your thinking.

5 What is the total cost of all the tickets?

answer: _____

6 What is the total cost for all the snacks?

answer: _____

 Show your thinking.

7 What is the total cost of the trip?

answer: _____

Additional Practice

6.21

1 A large movie screen is 25 feet wide and 15 feet tall. What is the total area of the screen?

- (A) 225 square feet (B) 275 square feet
(C) 325 square feet (D) 375 square feet

i Show your thinking.

answer: _____

Use the information for Problems 2-3.

Diego wants to build a fence around a rectangular playground. The playground measures 5 yards wide and 24 feet long.

i Show your thinking.

2 How much fencing, in feet, will he need?

answer: _____

3 What is the area of the playground?

answer: _____

Name _____ Date _____

Use this situation for problems 4–5.

Clare is fencing a rectangular dog park. The park is 6 yards wide and 30 feet long.

 Show your thinking.

4 How much fencing, in feet, does she need?

answer: _____

5 What is the total area of the dog park in square feet?

answer: _____

6 A large gift box is 5 yards wide and 30 feet long. Clare wants to wrap a ribbon all the way around the box's edges. She has 88 feet of ribbon. Does she have enough?

 Show your thinking.

answer: _____

Additional Practice**6.22**

- 1** Diego has 324 oranges. His friend has 276 oranges. They want to pack all the oranges into baskets. Each basket holds 12 oranges. How many baskets do they need to pack all the oranges?

(A) 48 (B) 50 (C) 52 (D) 54

- 2** The library received 3,520 new books. They placed 2,760 books on the shelves. The rest of the books were packed equally into 8 boxes. How many books were in each box?

 **Show your thinking.** _____

answer: _____

- 3** A company bought 3,704 gift boxes for a holiday event. They used 2,556 of them. The rest were divided equally into 7 storage bins. How many gift boxes were placed in each bin?

 **Show your thinking.** _____

answer: _____

Name _____ Date _____

- 4** A chocolate factory has 3,968 chocolates to package. They've already packaged 3,216 chocolates. The rest of the chocolates are packed into 8 boxes equally. How many chocolates are in each box?

i Show your thinking.

answer: _____

- 5** A toy store has 3,923 toys in stock. They sold 2,658 toys. The remaining toys are equally divided into 5 shelves. How many toys are placed on each shelf?

i Show your thinking.

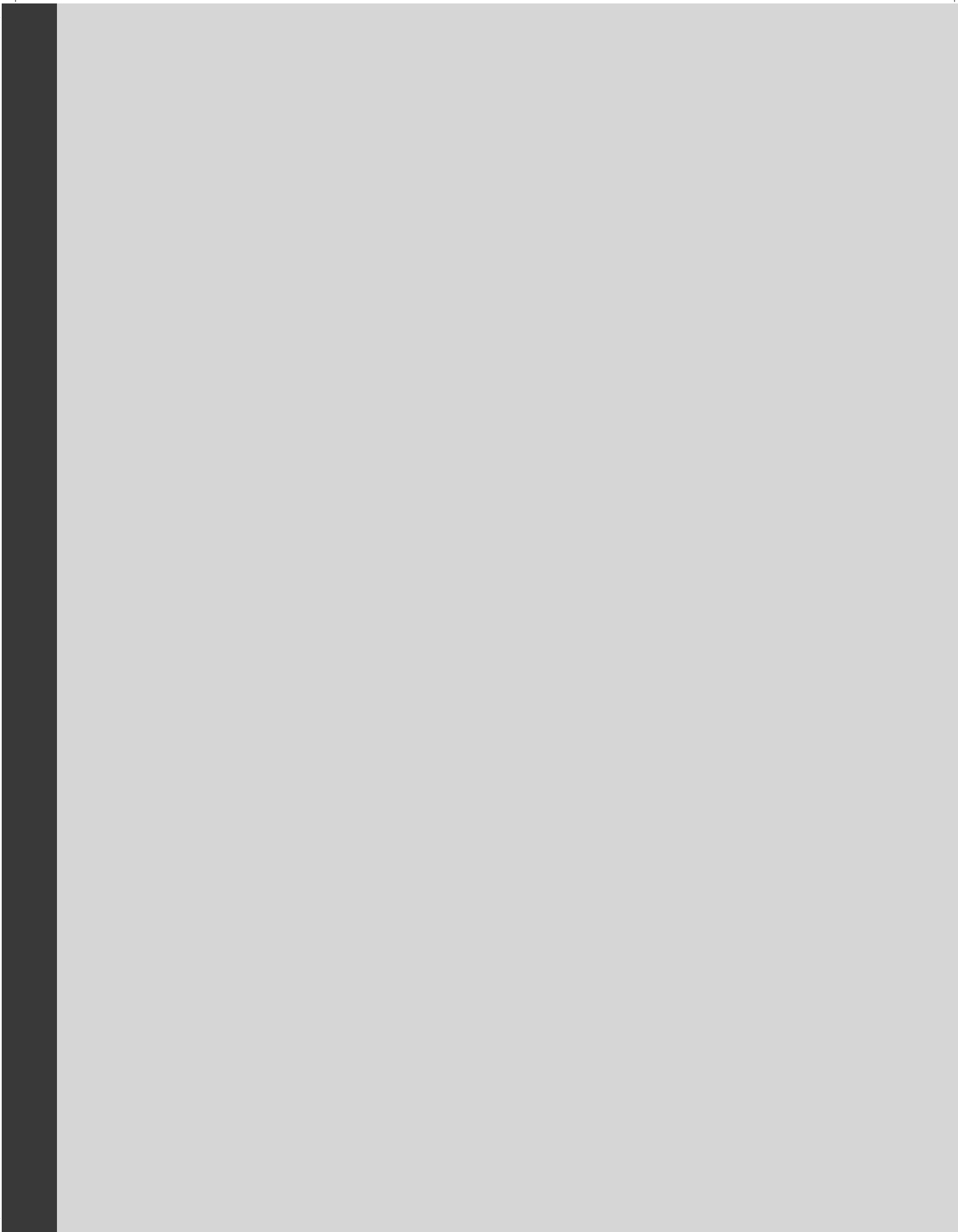
answer: _____

Grade 4

Unit 7

Additional Practice

Practice Problems

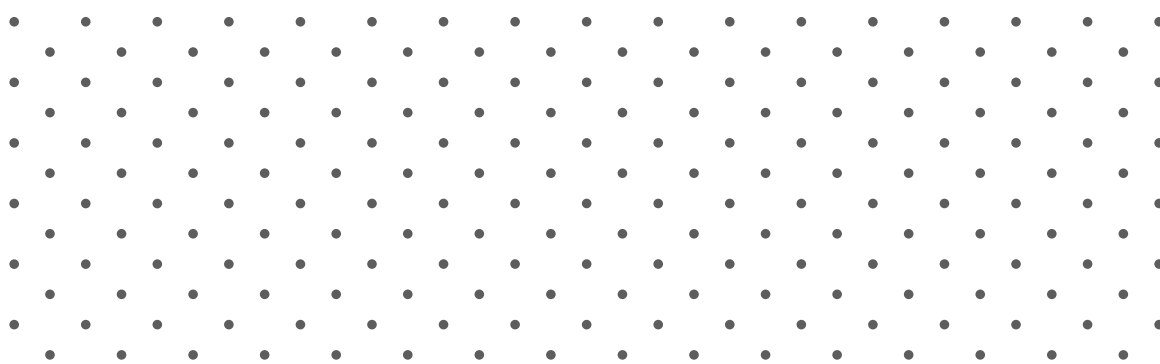


Additional Practice

7.02

- 1 Draw 4 points. Connect the points to create a rectangle.

 Draw



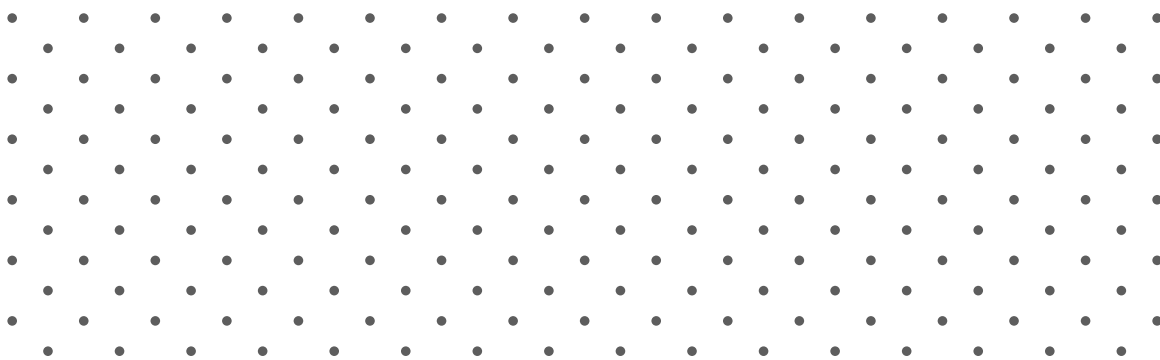
- 2 How many line segments are in your drawing in Problem 1?

For Problems 3 and 4, use the dot grid.

- 3 Draw 1 line segment that goes through exactly 5 points on the grid.

- 4 Draw 3 lines to create a triangle.

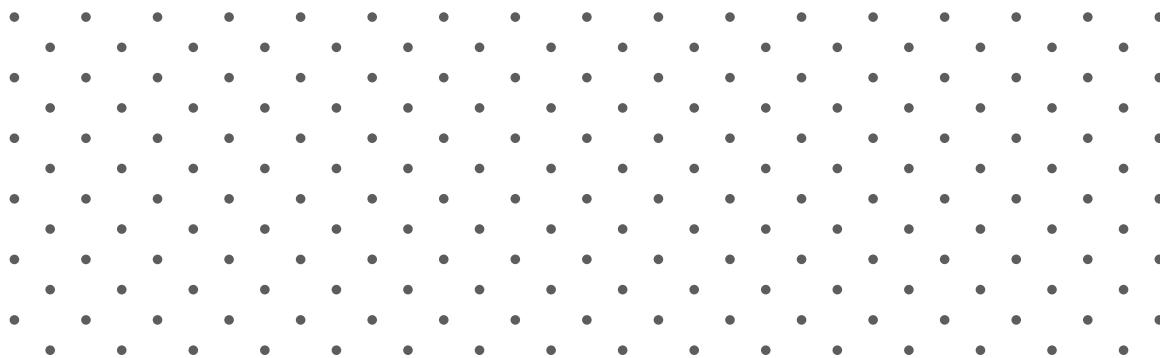
 Draw



Name _____ Date _____

5 Draw a triangle that goes through at least 4 points.

 Draw



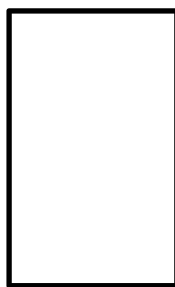
6 How are a ray and a line segment similar? How are they different?

Additional Practice

7.03

- 1 Diego says that a triangle cannot have any parallel sides. Is Diego correct? Explain why or why not.

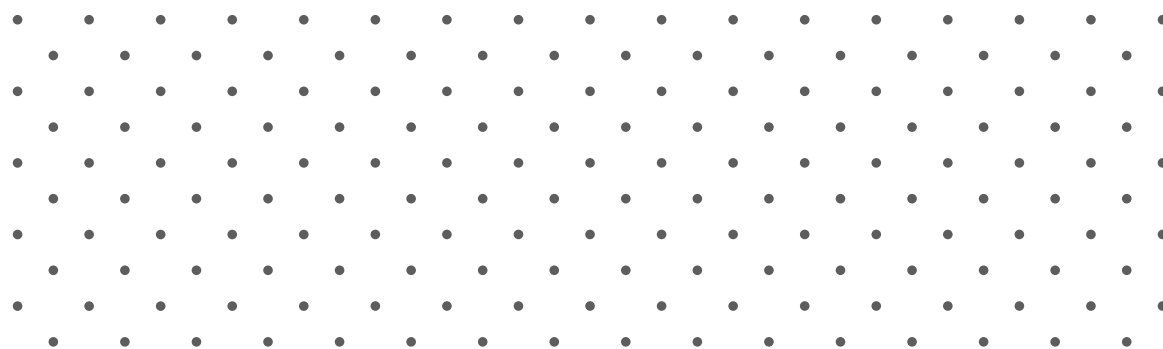
- 2 How many pairs of parallel sides does this shape have?



This shape has _____ pairs of parallel sides.

- 3 Draw 1 pair of parallel lines and 1 pair of perpendicular lines.

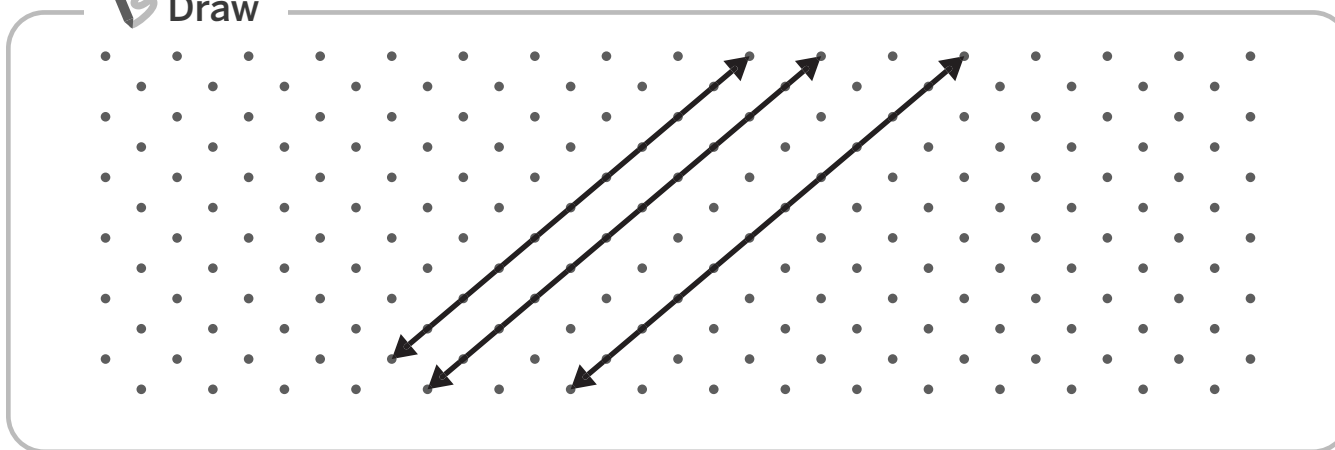
 Draw



Name _____ Date _____

For Problems 4 and 5, use the dot grid.

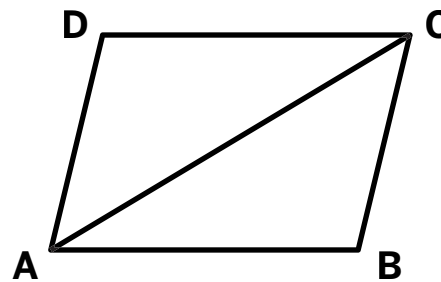
 Draw



- 4 Are the lines on the dot grid intersecting, parallel, or perpendicular? Explain your thinking.

- 5 Draw a line that intersects at least one of the lines on the dot grid but is not perpendicular to either lines.

- 6 Quadrilateral $ABCD$ is shown. Write 3 true statements about the quadrilateral. Include these terms in your answer: *opposite sides*, *parallel sides*, *intersect*.



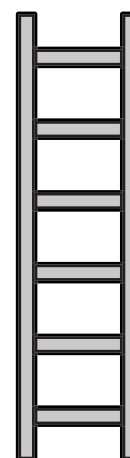
Additional Practice

7.04

- 1 Circle the 2-line segments in the letter “N” that are parallel.



- 2 Describe how the 8-line segments in the ladder are related.



- 3 Which letters have parallel line segments? Select *all* that apply.

A M

B R

C U

D L

E F

- 4 Which letters have perpendicular line segments? Select *all* that apply.

A T

B L

C Y

D M

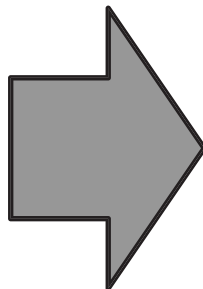
E P

Name _____ Date _____

For Problems 5-7, circle the line segments that are parallel.

 Draw

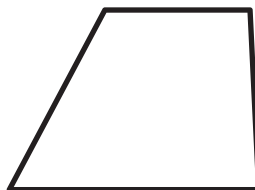
5



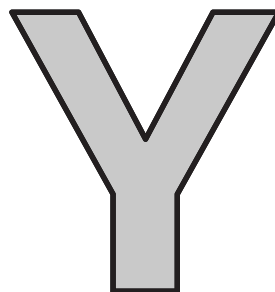
6



7



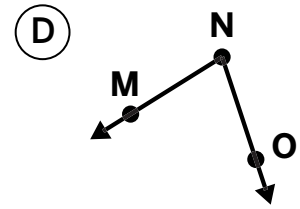
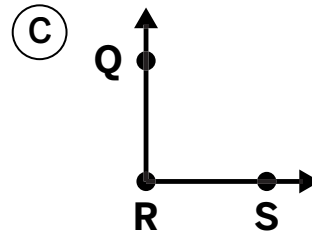
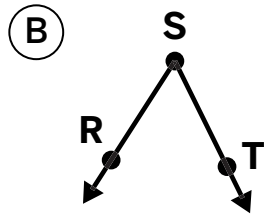
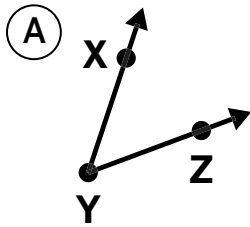
8 Circle 2-line segments that are not parallel.



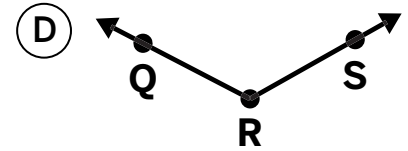
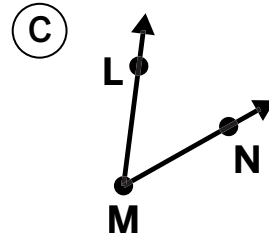
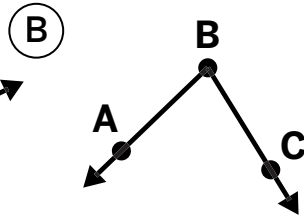
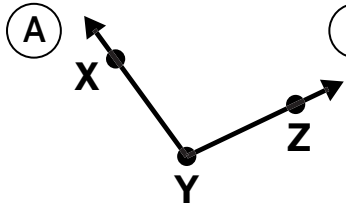
Additional Practice

7.05

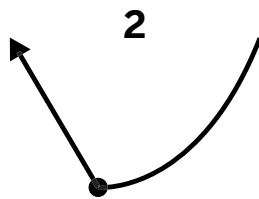
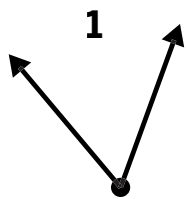
1 Which angle represents angle R ?



2 Which angle represents angle XYZ ?

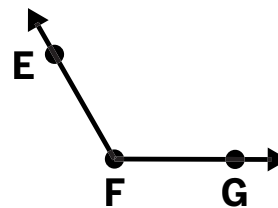


3 Priya says both figures shown are angles. Do you agree with Priya? Explain your thinking.

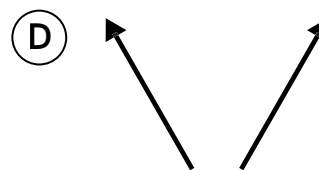
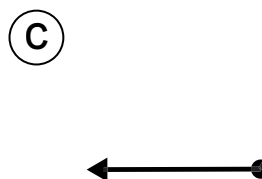
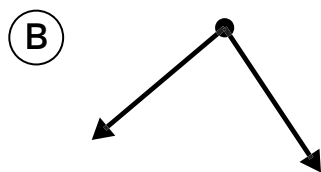
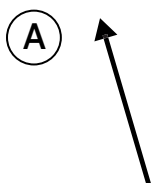


Name _____ Date _____

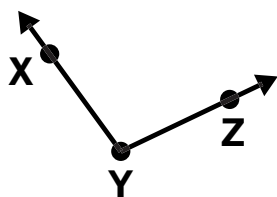
4 Name the angle.



5 Which figures are angles? Select *all* that apply.



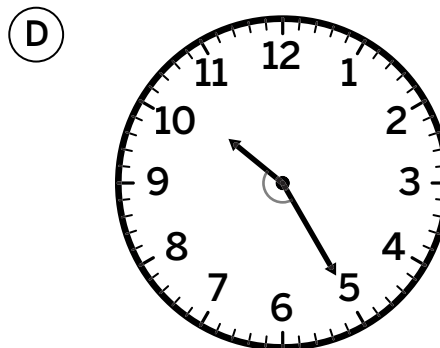
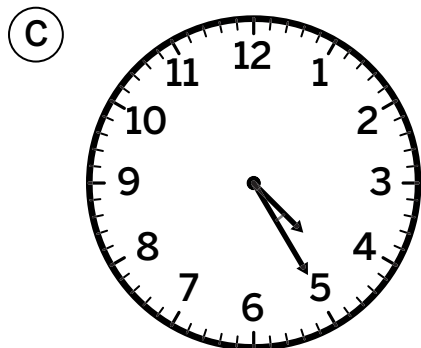
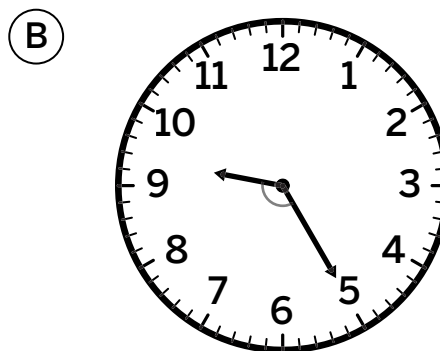
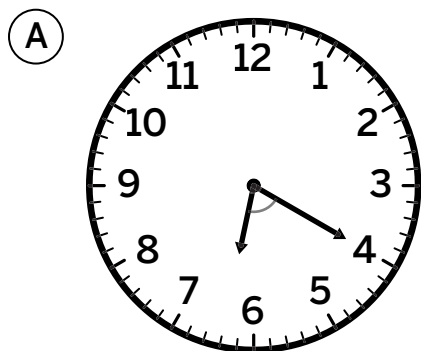
6 Diego names the angle shown as XYZ. Jada names the angle Y. Who do you agree with? Explain your thinking.



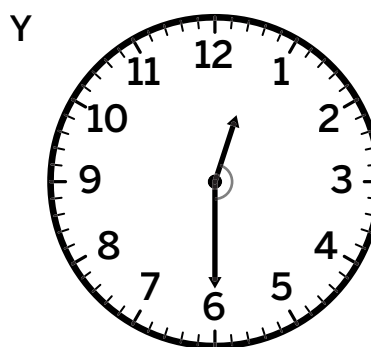
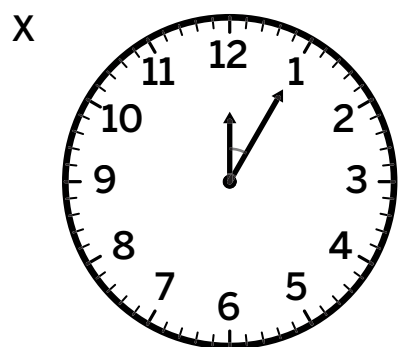
Additional Practice

7.06

1 Which clock shows the *smallest* angle?



2 Circle the clock with the *larger* angle.

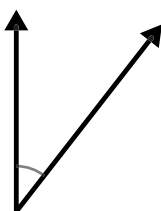


Name _____ Date _____

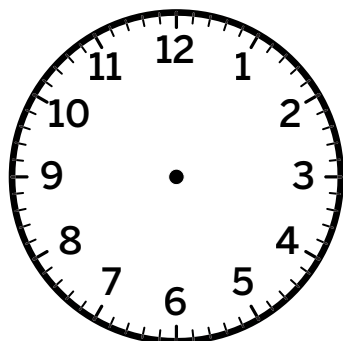
3 For Problem 2, how do you know which angle is larger? Explain your thinking.

4 Draw an angle on each clock face. Both angles should be *larger* than the given angle. Be sure to draw an arc between the rays to show which angle you are drawing.

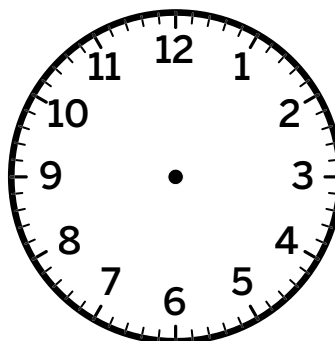
Given angle



Clock 1



Clock 2



Additional Practice

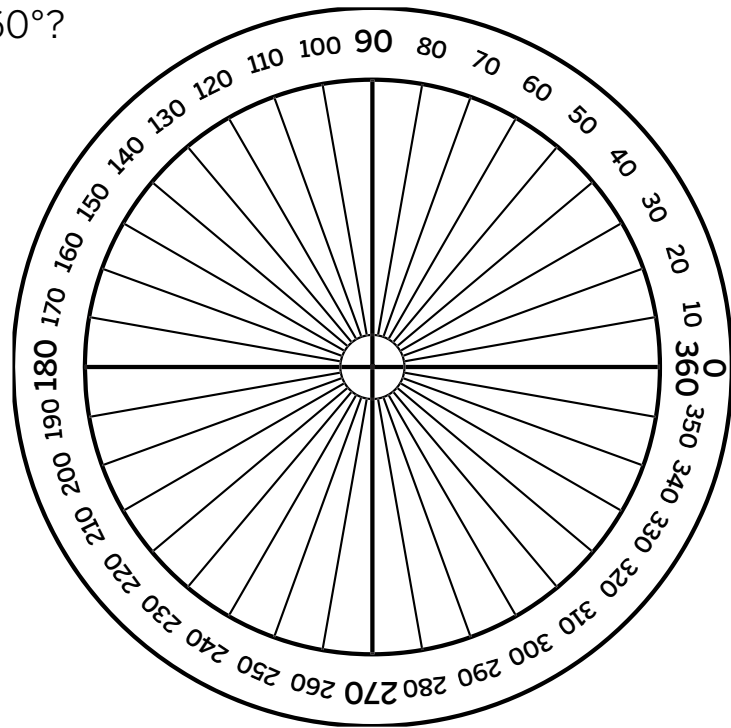
7.07

Use the image for Problems 1–3 if it is helpful.

1 What fraction of a full turn is 60° ?

2 What fraction of a full turn is 36° ?

3 How many 90° angles does it take to make a full turn?



For Problems 4–6, determine the measurement of the angle.

Show your thinking.

4



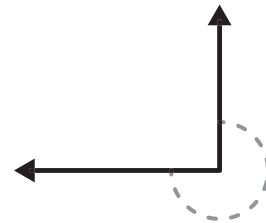
answer: _____

5



answer: _____

6



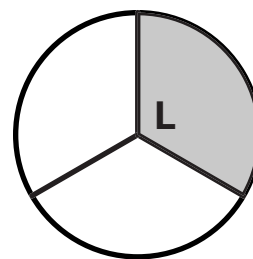
answer: _____

Name _____ Date _____

Use the image for Problems 7 and 8.

7 What fraction of a circle is angle L ?

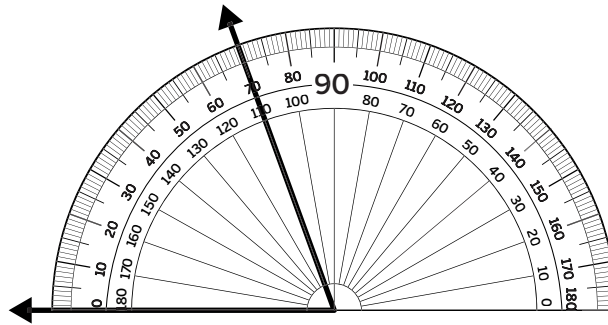
8 What is the measure of angle L in degrees?



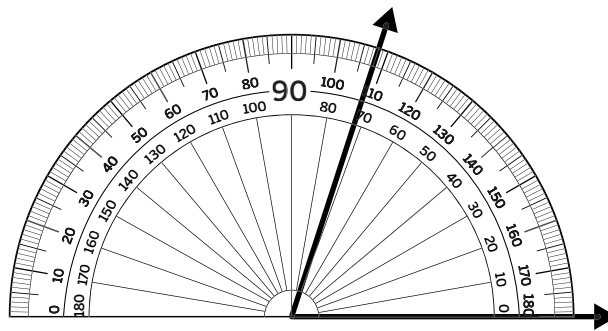
Additional Practice

7.08

- 1 Clare and Han both measured the angle with a protractor. Clare said the angle has a measure of 70° . Han said it has a measure of 110° . Who do you agree with? How might you explain the mistake the other student made?



- 2 What could be the measure of the angle?

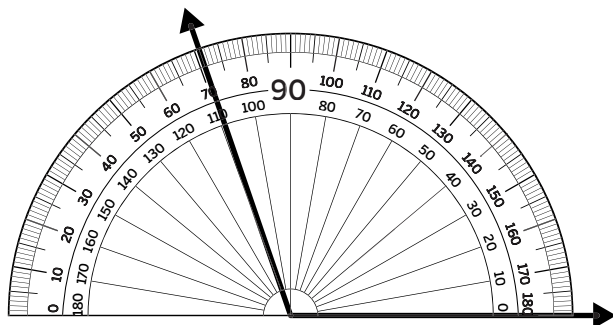


- (A) 71°
- (B) 109°
- (C) 100°
- (D) or a protractor

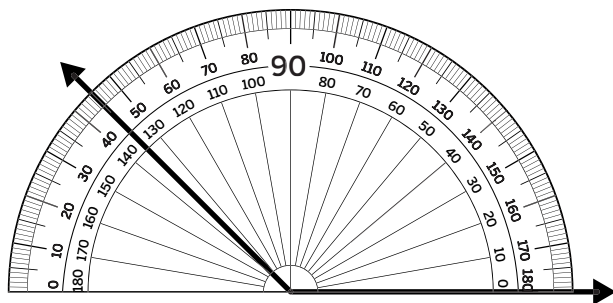
Name _____ Date _____

For Problems 3–5, use the images to determine each angle measurement.

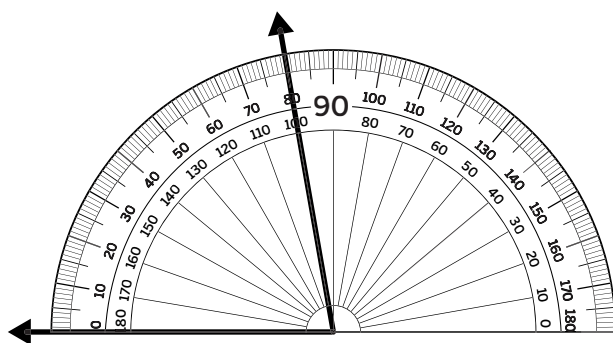
3



4



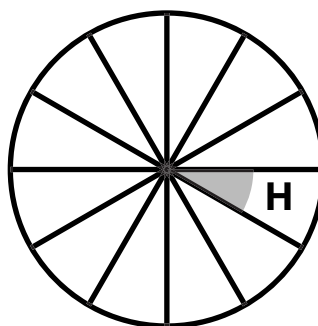
5



Additional Practice

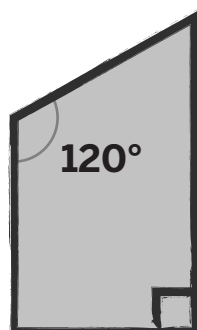
7.09

- 1 An angle is formed by dividing this circle into 12 equal parts. Measure the angle with a protractor. Then, name the angle as *acute*, *right*, *obtuse*, or *straight*.



answer: _____ , _____

- 2 The angle labeled in the figure below measures 120° . Name the angles as *acute*, *right*, *obtuse*, or *straight*.

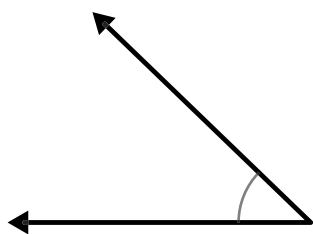


answer: _____

Name _____ Date _____

For Problems 3–7, name the angle as *acute*, *right*, *obtuse*, or *straight*

3



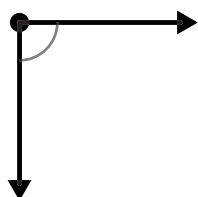
answer: _____

4



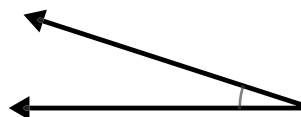
answer: _____

5



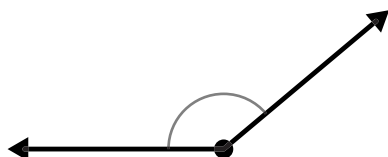
answer: _____

6



answer: _____

7



answer: _____

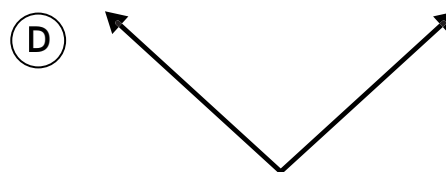
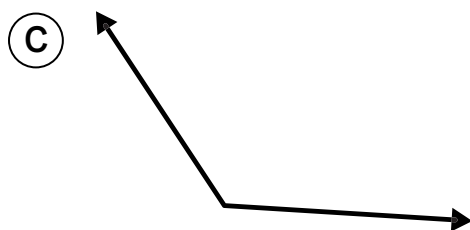
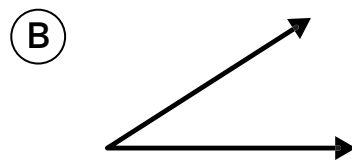
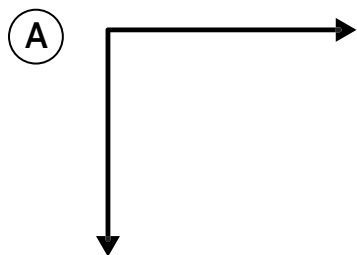
8

How do you know how to classify the angle in Problem 7 without finding its exact measurement in degrees?

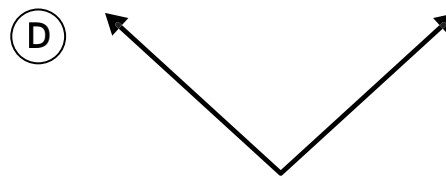
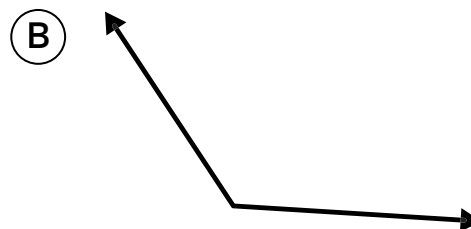
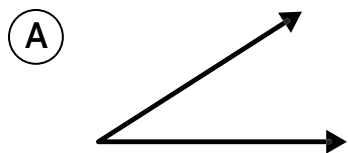
Additional Practice

7.10

1 Without measuring, which angle looks like it is about 120° ?



2 Without measuring, which angle looks like it is about 90° ?

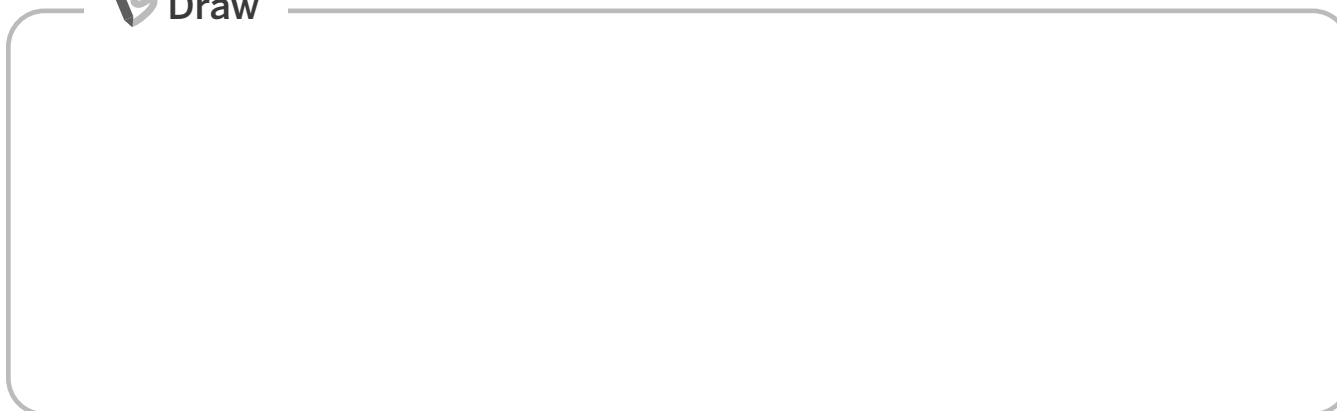


Name _____ Date _____

For Problems 3–5, draw the angle. Label the measurements.

3 Draw an angle that is between 90° and 130° .

 Draw



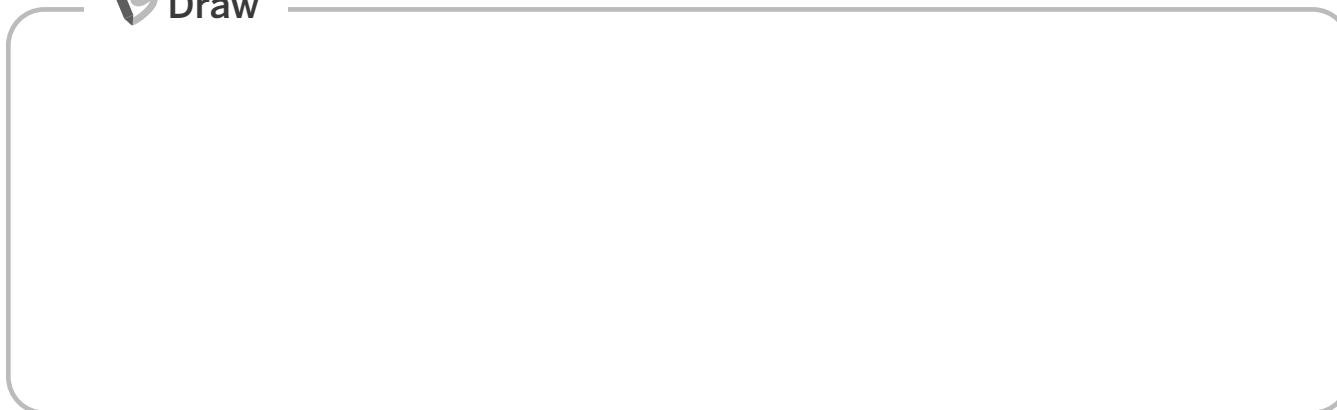
4 Draw a ray. Use the ray to draw as many different 45° angles as you can.

 Draw



5 Draw an angle that is 20° .

 Draw

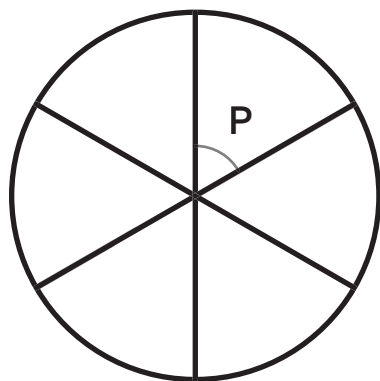


Additional Practice

7.11

i Show or explain your thinking.

- 1** The circle is divided into 6 equal parts. What is the measure of angle P ?

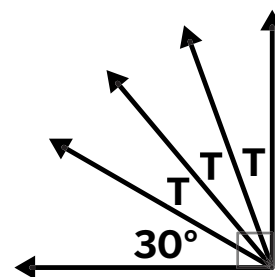


i Show or explain your thinking.

- 2** How many 10° angles does it take to make a circle?

- 3** What is the measure of angle T ?

- A** 30° **B** 20°
 C 15° **D** 25°

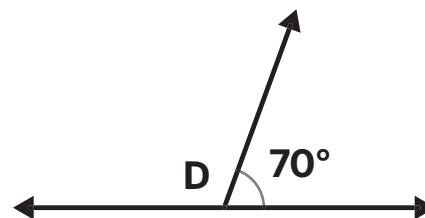


Name _____ Date _____

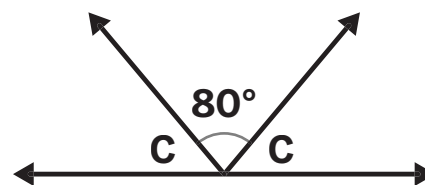
For Problems 4-5, determine the measure of the unknown angle.

i Show your thinking. _____

4 _____



5 _____



6 A 120° angle is split into 8 equal sections. Determine the measure of each angle.

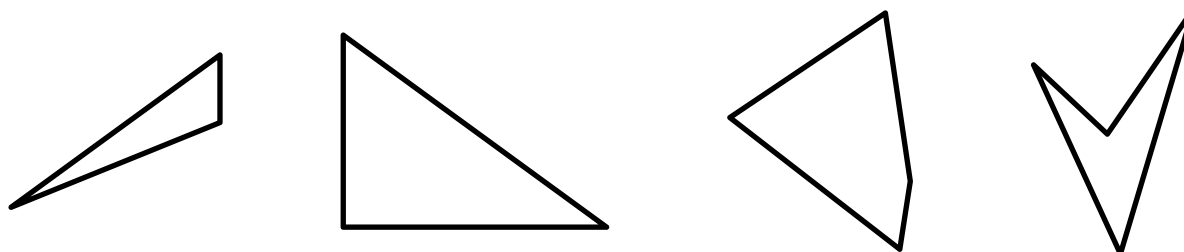
i Show your thinking. _____

answer: _____

Additional Practice

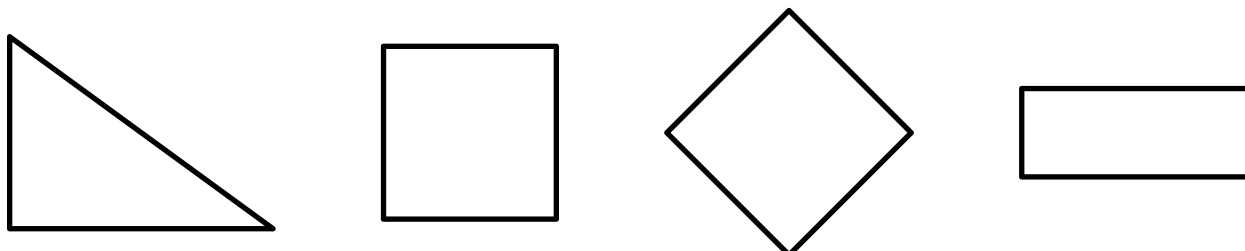
7.12

1 What attribute do the shapes have in common?



- (A) All 4 shapes have no parallel sides.
- (B) All 4 shapes have neither parallel nor perpendicular sides.
- (C) All 4 shapes have at least 1 pair of parallel sides.
- (D) All 4 shapes have at least 1 pair of perpendicular sides.

2 What attribute do the shapes have in common?

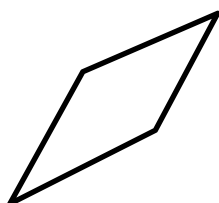


- (A) All 4 shapes have no parallel sides.
- (B) All 4 shapes have neither parallel nor perpendicular sides.
- (C) All 4 shapes have at least 1 pair of parallel sides.
- (D) All 4 shapes have at least 1 pair of perpendicular sides.

Name _____ Date _____

For Problems 3 and 4, use Shapes A–D.

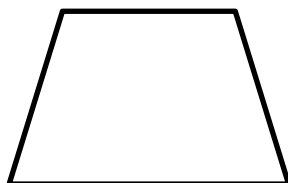
A



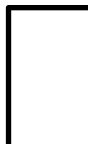
B



C



D



3 Name some of the attributes that *all* 4 shapes have in common.

4 Name some attributes that only *some* of the shapes have in common.

Additional Practice

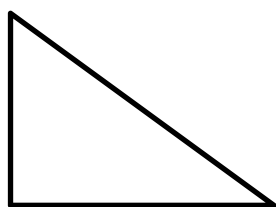
7.13

1 Draw an obtuse triangle.

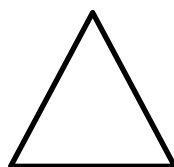
 Draw _____

2 Which triangles are acute? Select *all* that apply.

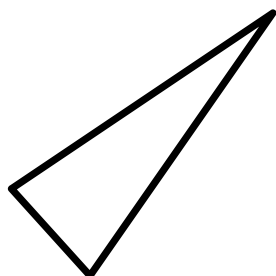
(A)



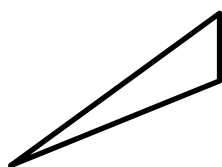
(B)



(C)

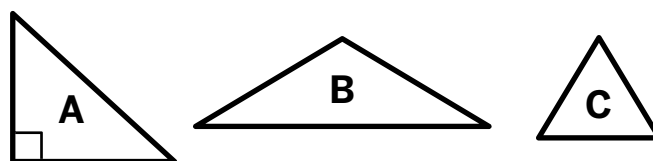


(D)



Name _____ Date _____

For Problems 3–6, use the triangles shown.



For Problems 3–5, write the correct name for the triangle.

3 Triangle A _____

4 Triangle B _____

5 Triangle C _____

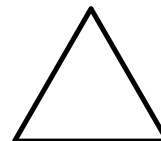
6 Complete the table to show how many of each type of angle are found in the triangles.

	Acute angles	Obtuse angles	Right angles
Triangle A			
Triangle B			
Triangle C			

Additional Practice

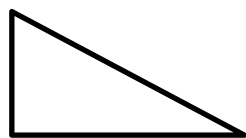
7.14

- 1 Clare says this is an equilateral triangle. Diego says this is anisosceles triangle. Who do you agree with and why?

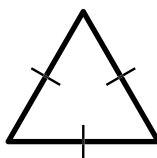


- 2 Which triangles are *scalene*? Select *all* that apply.

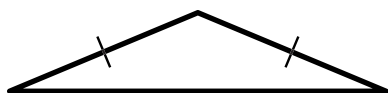
(A)



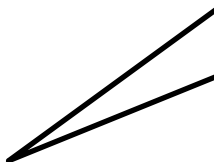
(B)



(C)



(D)

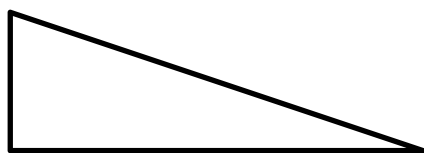


- 3 How do you know which triangles from Problem 2 are not scalene?

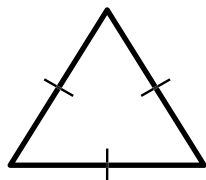
Name _____ Date _____

For Problems 4–9, identify the triangle as *equilateral*, *isosceles*, or *scalene*.

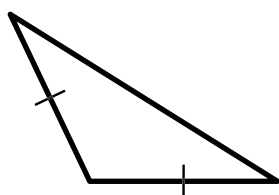
4



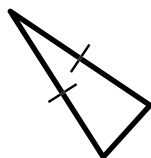
5



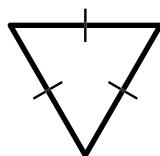
6



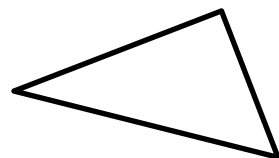
7



8



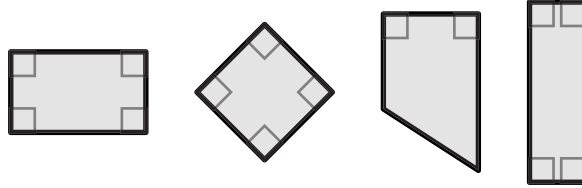
9



Additional Practice

7.15

- 1** Which attributes do these quadrilaterals have in common?
Select *all* that apply.



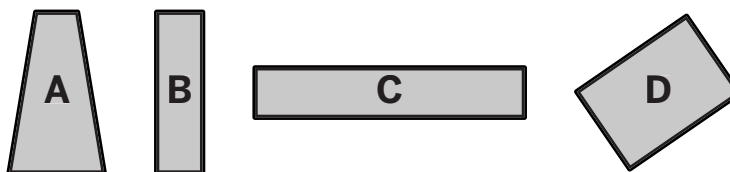
- (A) All shapes have 4 equal sides.
- (B) All shapes have 4 equal angles.
- (C) All shapes have at least 1 obtuse angle.
- (D) All shapes have at least 1 right angle.
- (E) All shapes have at least 1 pair of parallel sides.
- (F) All shapes have at least 1 pair of perpendicular sides.

- 2** Shawn says that a rectangle is also a parallelogram. Do you agree with Shawn? Why or why not?

Name _____ Date _____

3 Jada says that a rhombus is also a quadrilateral. Do you agree with Jada. Why or why not?

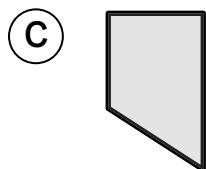
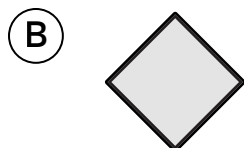
4 Which quadrilateral does not belong. Explain your thinking.



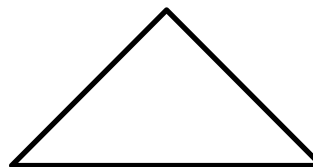
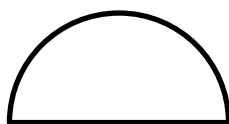
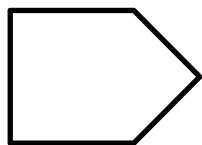
Additional Practice

7.16

1 Which figures have 1 line of symmetry? Select *all* that apply.



2 Draw *all* the lines of symmetry for each figure.



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- 3** Draw *all* lines of symmetry for each letter. If a letter does not have any lines of symmetry, leave it blank.

U M Y

D P J

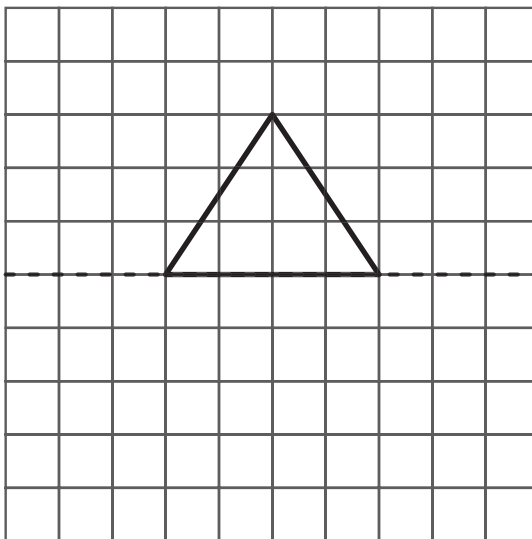
O E L

Additional Practice

7.17

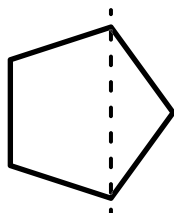
- 1 Complete the figure so that the dashed line is a line of symmetry for the new figure. How did you complete the symmetric figure?

 Draw



- 2 Which image shows a line of symmetry?

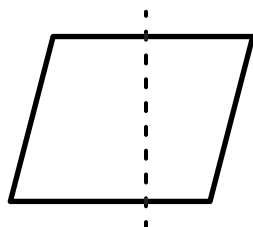
(A)



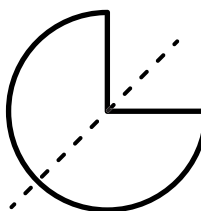
(B)



(C)



(D)

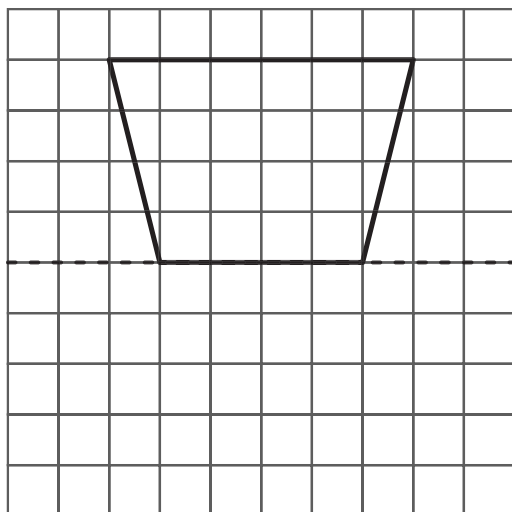


Name _____ Date _____

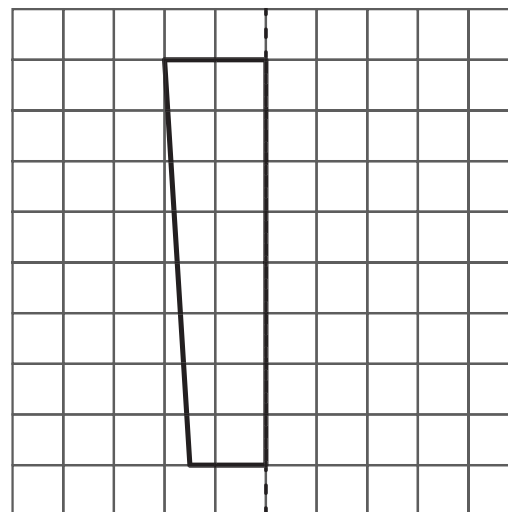
For Problems 3–4, complete the figure so that the dashed line is a line of symmetry for the new figure.

 Draw

3

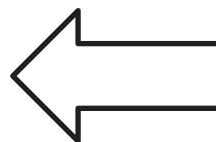
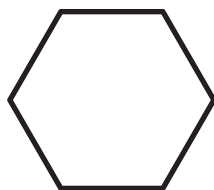


4



5 Draw *all* lines of symmetry for each figure.

 Draw

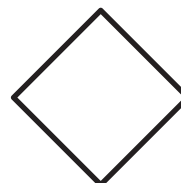
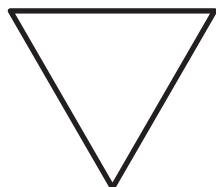


Additional Practice

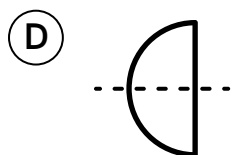
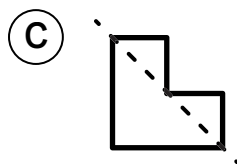
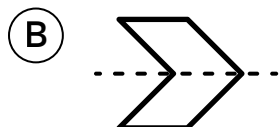
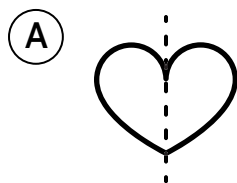
7.18

1 Draw *all* the lines of symmetry in the shapes.

 Draw



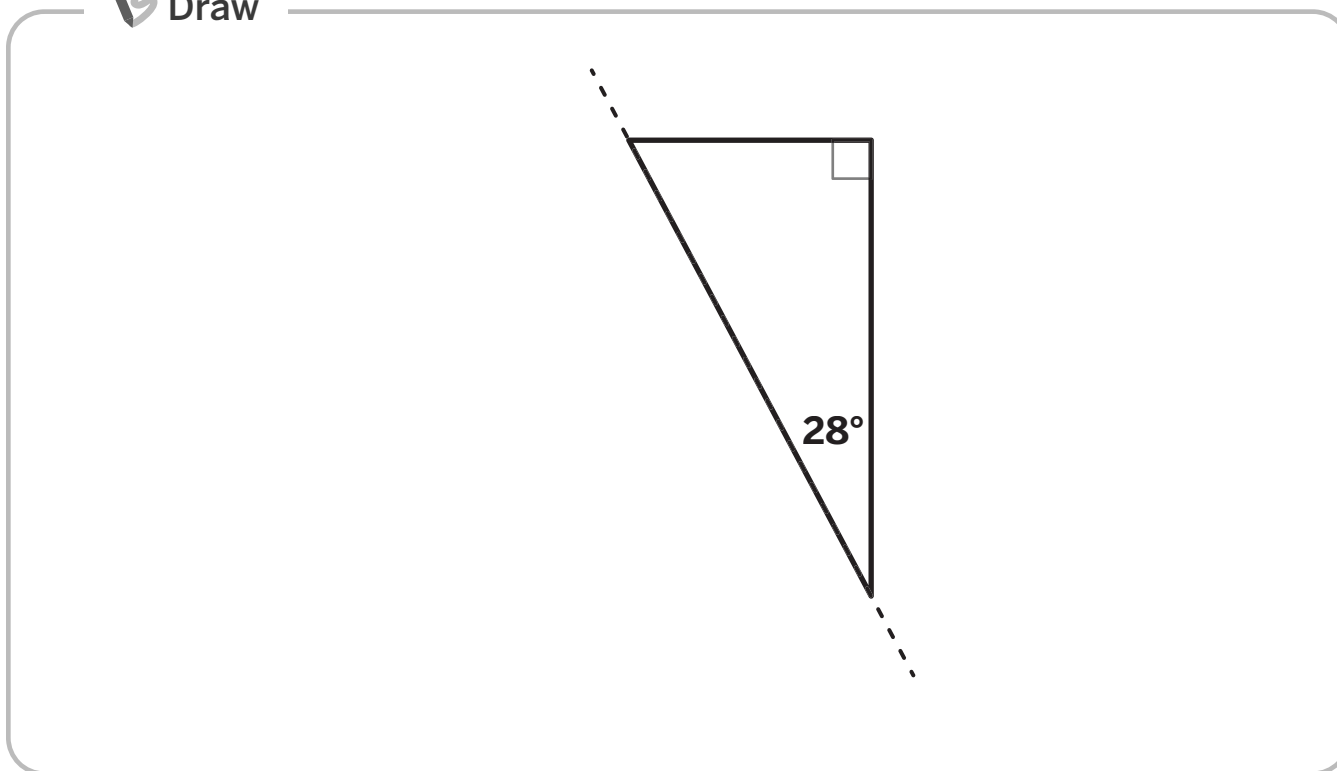
2 Which image does *not* show a line of symmetry?



Name _____ Date _____

- 3 Complete the figure so that the dashed line is a line of symmetry for the new figure. Label the measurements of *all* the new angles within the new figure.

 Draw



- 4 Which shape has more lines of symmetry? Explain your thinking.

