

 Amplify Desmos Math **CALIFORNIA**

Grade 4

**Intervention, Extension, and
Investigation Resources**

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Mini-Lessons

Unit 1

Mini-Lessons

Extending Growing Patterns

ML 1.02



Modeled Review



Name: Han

Here is a growing pattern that follows a rule. Use the pattern to answer Problems 1 and 2.



- How many circles would be in Step 4 of the pattern?
20
- How many circles would be in Step 5 of the pattern?
25



Guided Practice



Problems 1 and 2 show growing patterns that follow a different rule. Draw the missing step in the pattern. Use counters if it is helpful.

1.

Step 1	Step 2	Step 3	Step 4
● ●	● ● ● ●		● ● ● ● ● ● ● ●

2.

Step 1	Step 2	Step 3	Step 4
● ● ● ●	● ● ● ● ● ● ● ●	● ● ● ● ● ● ● ● ● ● ● ●	



Guided Practice



3. Here is a growing pattern that follows a rule. Draw the next step in the pattern. Use counters if it is helpful.



Step 1



Step 2



Step 3

Step 4

4. Fill in the table based on the growing pattern from Problem 3. Use counters if it is helpful.

Step	Number of circles	Expression
1	3	1×3
2	6	$2 \times \underline{\quad}$
3		
4		
5		



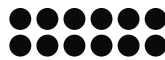
Check



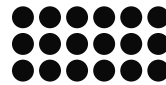
Here is a growing pattern that follows a rule. Use the pattern to answer Problems 1 and 2.



Step 1



Step 2



Step 3

1. How many circles would be in Step 4 of the pattern?

2. How many circles would be in Step 5 of the pattern?

Generating Number Patterns

ML 1.03



Modeled Review

Name: Kai

Use the given rule to generate the next 4 numbers in each pattern. The first number is provided.

1. Rule: Add 4

2 , 6 , 10 , 14 , 18

2. Rule: Multiply by 2

10 , 20 , 40 , 80 , 160



Guided Practice



Use the given rule to generate the next numbers in the pattern.

1. Rule: Add 3

3 , 6 , 9 , _____ , _____ , _____

2. Rule: Add 4

8 , 12 , _____ , _____ , _____ , _____

3. Rule: Add 6

18 , _____ , _____ , _____ , _____ , _____



Guided Practice



Use the given rule to generate the next numbers in the pattern.

4. Rule: Multiply by 2

_____ 4 _____, _____ 8 _____, _____ 16 _____, _____, _____

5. Rule: Multiply by 5

_____ 2 _____, _____ 10 _____, _____, _____, _____

6. Rule: Multiply by 10

_____ 3 _____, _____, _____, _____, _____



Check



Use the given rule to generate the next numbers in the pattern.

1. Rule: Add 5

_____ 10 _____, _____, _____, _____, _____

2. Rule: Multiply by 3

_____ 2 _____, _____, _____, _____, _____

Skip Counting to Find Multiples

ML 1.04



Modeled Review

Name: Diego

Two multiples of 3 have been provided for you. List the next six multiples of 3.

Multiples of 3: 3, 6, 9, 12, 15, 18, 21, 24

I can skip count by 3 to find the multiples.



Guided Practice



List the next multiples of the given number.

1. Multiples of 2: 2, 4, _____, _____

2. Multiples of 2: 12, _____, _____, _____

3. Multiples of 2: 24, _____, _____, _____

4. Multiples of 3: 3, 6, _____, _____, _____



Guided Practice



List the next multiples of the given number.

5. Multiples of 6: 6, _____, _____, _____, _____, _____

6. Multiples of 100: 100, _____, _____, _____, _____

7. List six multiples of 10.

_____, _____, _____, _____, _____, _____

8. List six multiples of 5.

_____, _____, _____, _____, _____, _____

9. List six multiples of 3.

_____, _____, _____, _____, _____, _____

10. List six multiples of 9.

_____, _____, _____, _____, _____, _____



Check



List six multiples of 4.

_____, _____, _____, _____, _____, _____

Identifying Multiples

ML 1.05



Modeled Review

Name: Avery

Place a check mark next to the numbers that are multiples of 5.

Number	Multiple of 5?
20	✓
38	
50	✓
72	

I can skip count by 5 to find multiples of 5.
5, 10, 15, 20, 25, 30, 35, 40, 45, 50...



Guided Practice



1. Skip count by 4 up to 40. Use a hundreds chart if it is helpful.

4, _____, _____, _____, _____, _____, _____, _____, _____, _____, _____

2. Place a check mark next to the numbers that are multiples of 4. Use your skip counting pattern from Problem 1 if it is helpful.

Number	Multiple of 4?
16	
20	
22	
36	



Guided Practice



Place a check mark next to the numbers that are multiples of the given number. Use a hundreds chart if it is helpful.

3.

Number	Multiple of 5?
20	✓
35	
56	
75	

4.

Number	Multiple of 10?
40	
68	
80	
96	

5.

Number	Multiple of 6?
18	
32	
36	
40	

6.

Number	Multiple of 9?
19	
25	
50	
54	



Check



Place a check mark next to the numbers that are multiples of 3.

Number	Multiple of 3?
14	
18	
23	
33	

Identifying Factor Pairs

ML 1.06



Modeled Review

Name: Jada

Use the factor pairs of 15 to write multiplication expressions.

Number	Factor pairs
15	$1 \times 15, 3 \times 5$

I can find factor pairs by thinking about which two numbers I can multiply to equal the number.



Guided Practice



Determine *all* the factor pairs of the given number.

Number	Factor pairs
12	$1 \times 12, 2 \times 6, 3 \times \underline{\hspace{1cm}}$
9	$1 \times 9, 3 \times \underline{\hspace{1cm}}$
10	$1 \times 10, \underline{\hspace{1cm}} \times \underline{\hspace{1cm}}$
16	$1 \times 16, 2 \times 8, \underline{\hspace{1cm}} \times \underline{\hspace{1cm}}$
21	$1 \times 21, \underline{\hspace{1cm}} \times \underline{\hspace{1cm}}$
19	$1 \times \underline{\hspace{1cm}}$



Guided Practice



Use *all* the factor pairs of the given number to write multiplication expressions.

Number	Factor pairs
30	1×30 , _____, _____, _____
7	$1 \times$ _____
35	
20	
36	



Check



Use *all* the factor pairs of the given number to write multiplication expressions.

Number	Factor pairs
18	
11	



Guided Practice



4. Complete the table to determine if each number is *prime* or *composite*.

Number	Factor pairs	Prime or composite?
23	1×23	
35	$1 \times 35, \underline{5} \times \underline{\quad}$	
20	$1 \times 20, 2 \times 10, \underline{\quad} \times \underline{\quad}$	
61		

5. Complete the table to determine if each number is *prime* or *composite*.

Number	More than 2 factors?	Prime or composite?
40	yes	
31		



Check



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

Number	More than 2 factors?	Prime or composite?
64		
17		

Multiplication Fluency Within 100

ML 1.08



Modeled Review

Name: Clare

Use multiplication facts to fill in the chart.

×	1	2	3	4	5
1	1	2	3	4	5
2	2	4	6	8	10
3	3	6	9	12	15
4	4	8	12	16	20
5	5	10	15	20	25



Guided Practice



1. Use multiplication facts to complete the chart.

×	1	2	3	4	5	6	7	8	9	10
1	1	2	3	4	5		7	8	9	10
2	2	4	6			12		16	18	20
3	3		9	12	15	18	21	24		
4	4	8			20	24	28		36	40
5	5	10		20	25		35	40	45	50



Guided Practice



2. Use multiplication facts to complete the chart.

\times	1	2	3	4	5	6	7	8	9	10
1	1		3	4	5		7	8		10
2	2	4	6			12		16		20
3	3			12	15		21	24		
4	4	8			20	24	28		36	40
5		10		20	25		35	40	45	
6	6	12	18	24	30	36		48	54	60
7	7		21		35	42		56		70
8	8		24		40	48	56		72	80
9	9	18	27	36			63		81	90
10	10		30	40	50	60	70	80		



Check



Find the product.

1. $9 \times 6 =$ _____

2. $4 \times 4 =$ _____

3. $6 \times 7 =$ _____

4. $7 \times 7 =$ _____

5. $8 \times 8 =$ _____

6. $8 \times 4 =$ _____

Using Factors and Multiples to Solve Real-World Problems

ML 1.09



Modeled Review

Name: Jack

Ms. Hernández has 24 students in her class. Should she make teams of 4 or 5 so that each team has the same number of players? Show your thinking.

Multiples of 4: 4, 8, 12, 16, 20, 24...

She should make teams of 4.

24 is a multiple of 4.



Guided Practice



Solve the problem. Explain your thinking.

1. In a cafeteria, every table has the same number of seats. In total, there are 75 seats. Which could be the number of seats at each table: 5 or 11?

The cafeteria has tables that seat _____ students each.

75 is a multiple of _____.



Guided Practice



2. If 80 students play basketball with 5 students on each team, how many teams will there be? Show your thinking.

There will be _____ basketball teams.

5 and _____ are factors of 80.

3. There are 88 students playing soccer. Each team has 11 players. How many teams are there? Show your thinking.



Check



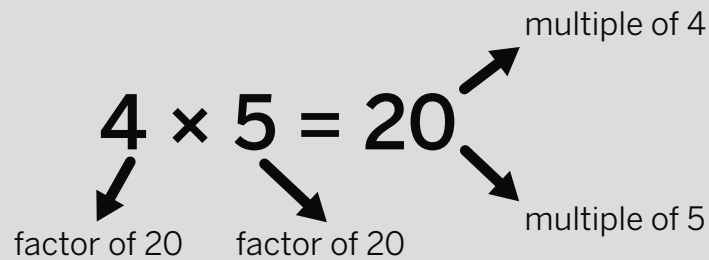
If 36 students form teams of 9, how many teams will there be? Show your thinking.

Determining Factors and Multiples

ML 1.10



Modeled Review



Guided Practice



Use the word bank to fill in the blank. Each word can be used more than once.

factor

multiple

1. A _____ of a number can be multiplied by a whole number to make that number.
2. A _____ of a number is the result of multiplying that number by any whole number.
3. 20 is a _____ of 5 because 4 groups of 5 make 20.
4. 5 is a _____ of 20 because 5 multiplied by 4 is 20.



Guided Practice



5. For each row in the table, write the given number in one of the two blanks for each statement. Then, complete both statements with another number.

Number	Factor	Multiple
6	_____ is a factor of 36.	6 is a multiple of 2.
12	12 is a factor of 24.	12 is a multiple of _____.
21	_____ is a factor of _____.	_____ is a multiple of _____.
20	_____ is a factor of _____.	_____ is a multiple of _____.

6. Choose one of the statements from the table to explain.

_____ is a multiple of _____ because _____



Check



1. For each row in the table, write the given number in one of the two blanks for each statement. Then, complete both statements with another number.

Number	Factor	Multiple
30	_____ is a factor of _____.	_____ is a multiple of _____.
18	_____ is a factor of _____.	_____ is a multiple of _____.

2. Choose one of the statements from the table to explain.

Identifying Numbers Using Factors, Multiples, and Prime and Composite Numbers

ML 1.11



Modeled Review

Name: Maya

Identify the mystery number from the number bank, using the following clues.

5	21	10	35
--------------	---------------	---------------	----

- The number is composite.
- 7 is a factor of the number.
- The number is a multiple of 5.

mystery number: 35

21, 10, and 35 are composite.

7 is a factor of 21 and 35.

21 is not a multiple of 5, so
35 is the mystery number!

Guided Practice



Use the number bank for Problems 1–4. Each number can be used more than once.

40	23	16	13	37	34
----	----	----	----	----	----

- List all the composite numbers.
40, 16, _____
- List all the prime numbers.
23, _____, _____
- List all the numbers for which 8 is a factor.
16, _____
- List all the numbers that are multiples of 2.
_____, _____, _____



Guided Practice



5. Determine if each number is a multiple of 4, a factor of 48, neither, or both. Place a check mark in each correct column.

Number	Multiple of 4	Factor of 48
12	✓	✓
36	✓	
14		
24		

Identify which of the numbers in the number bank are the mystery number for each of the following lists.

49	15	22	33	72
----	----	----	----	----

6. • The number is composite.
• The number is a multiple of 5.
• 3 is a factor of the number.
7. • The number is composite.
• The number is a multiple of 11.
• 3 is a factor of the number.

mystery number: _____

mystery number: _____



Check



Identify which number in the number bank is the mystery number for the following list.

64	6	36	17
----	---	----	----

- The number is composite.
- 3 is a factor of the number.
- The number is a multiple of 9.

mystery number: _____

Describing Numbers Using Factors, Multiples, and Prime and Composite Numbers

ML 1.12



Modeled Review



Name: Santiago

Write three true statements about the number 45. Each statement should include one of the following words: prime, composite, factor, multiple.

45 is a composite number.

45 has more than two factors, so it's composite.

9 is a factor of 45.

I can multiply 5 by 9 to get 45, so they are both factors.

45 is a multiple of 5.

I can skip count to 45 by 5, so 45 is a multiple of 5.



Guided Practice



For each number, circle the correct choice in each row.

1.

25
prime or composite
Factor of: 50 or 65
Multiple of: 10 or 5

2.

7
prime or composite
Factor of: 30 or 28
Multiple of: 7 or 17



Guided Practice



3. For each number, fill in the blanks to make three true statements. Each statement should include one of the following words: prime, composite, factor, multiple.

Number	Statements
15	15 is a composite number. 5 is a factor of 15. _____ is a multiple of _____.
8	8 is a composite number. _____ is a factor of _____. _____ is a multiple of _____.
3	_____ is a _____ number. _____ is a factor of _____. _____ is a multiple of _____.
35	_____ _____ _____



Check



Write three true statements about the number 40. Each statement should include one of the following words: prime, composite, factor, multiple.

Unit 2

Mini-Lessons

Representing Unit Fractions on Fraction Strip Diagrams

ML 2.02

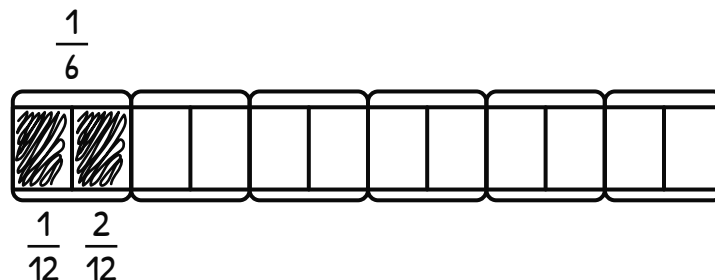


Modeled Review



Name: Avery

The fraction-strip represents 1 whole. Shade the fraction-strip diagram to represent the fraction $\frac{1}{6}$.

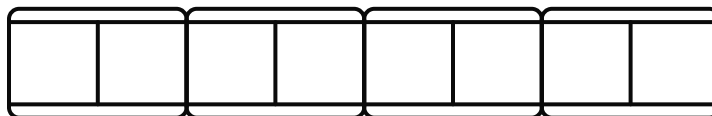


Guided Practice

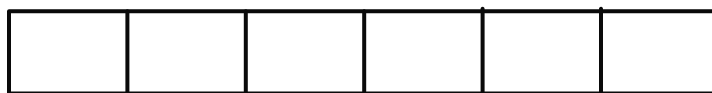


Each fraction-strip diagram represents 1 whole.

1. Shade the fraction-strip diagram to represent the fraction $\frac{1}{4}$.



2. Shade the fraction-strip diagram to represent the fraction $\frac{1}{2}$.



3. Shade the fraction-strip diagram to represent the fraction $\frac{1}{3}$.





Guided Practice



Each fraction-strip diagram represents 1 whole.

4. Shade the fraction-strip diagram to represent the fraction $\frac{1}{8}$.



5. Shade the fraction-strip diagram to represent the fraction $\frac{1}{6}$.



6. Shade the fraction-strip diagram to represent the fraction $\frac{1}{4}$.



7. Shade the fraction-strip diagram to represent the fraction $\frac{1}{12}$.



Check



Each fraction-strip diagram represents 1 whole.

1. Shade the fraction-strip diagram to represent the fraction $\frac{1}{5}$.



2. Shade the fraction-strip diagram to represent the fraction $\frac{1}{10}$.



Locating and Labeling Fractions Less Than 1 on a Number Line

ML 2.03

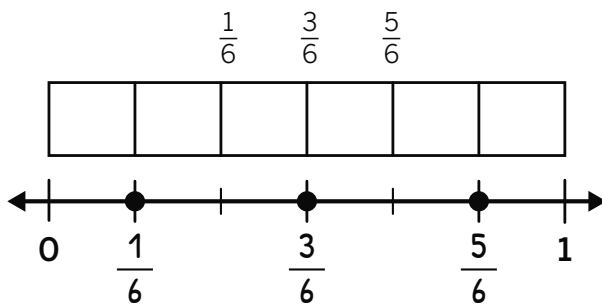


Modeled Review



Name: Jack

Locate and label the following fractions on the number line. Use the fraction-strip diagram if it is helpful.



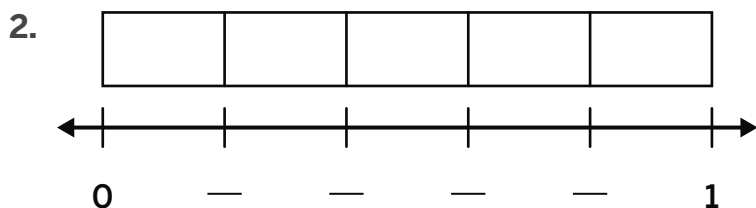
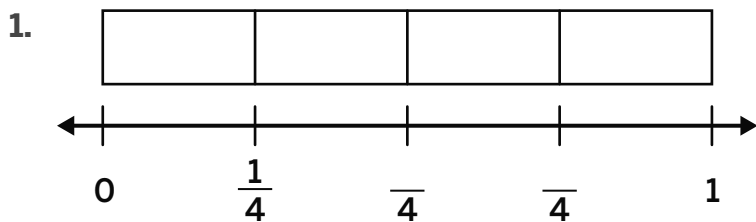
I notice the fraction strip is partitioned into six equal parts. I can use the fraction strip to help me partition my number line.



Guided Practice



Label all the tick marks on each number line. Use the fraction-strip diagram if it is helpful.



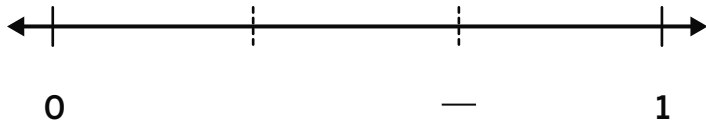


Guided Practice



Each number line represents 1 unit. Locate and label the fraction by partitioning the number line.

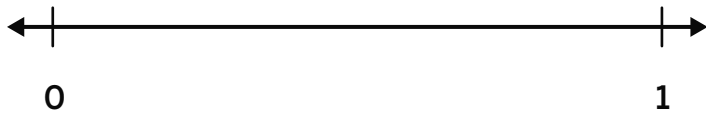
3. Represent $\frac{2}{3}$ on the number line with a point.



4. Represent $\frac{1}{3}$ on the number line with a point.



5. Represent $\frac{3}{5}$ on the number line with a point.

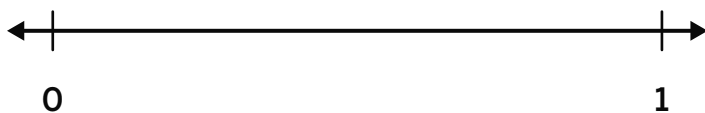


Check



The number line represents 1 unit. Locate and label the fraction by partitioning the number line.

- Represent $\frac{3}{8}$ on the number line with a point.



Labeling Fractions Greater Than 1 on a Number Line

ML 2.04

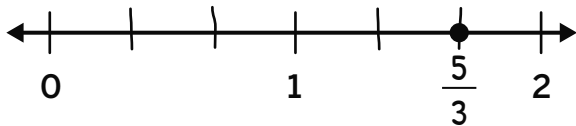


Modeled Review



Name: Kai

Locate and label the fraction $\frac{5}{3}$ with a point.



The denominator is 3, so I know that I need to have 3 equal parts between 0 and 1 and 3 equal parts between 1 and 2.

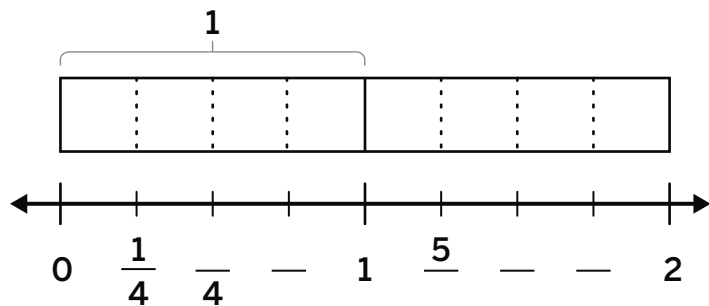


Guided Practice

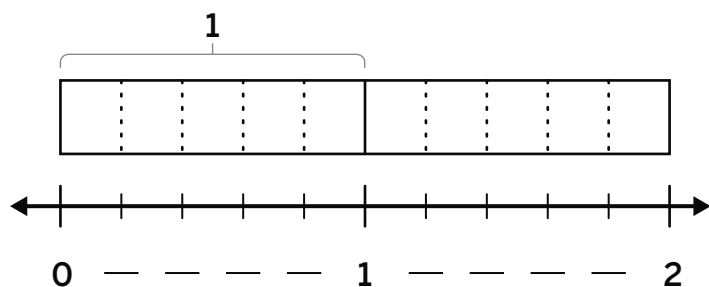


Label *all* the tick marks on each number line. Use the fraction-strip diagram if it is helpful.

1.



2.

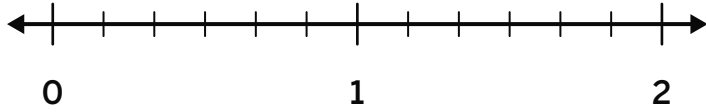




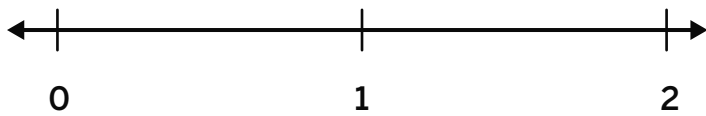
Guided Practice



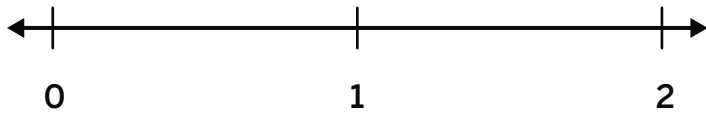
3. Locate and label the fraction $\frac{9}{6}$ with a point.



4. Locate and label the fraction $\frac{3}{2}$ with a point.



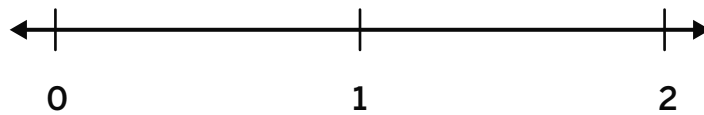
5. Locate and label the fraction $\frac{14}{8}$ with a point.



Check



- Locate and label the fraction $\frac{6}{4}$ with a point.

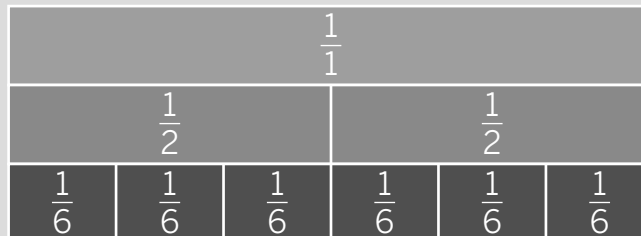


Identifying Equivalent Fractions Using Fraction Strips

ML 2.05



Modeled Review



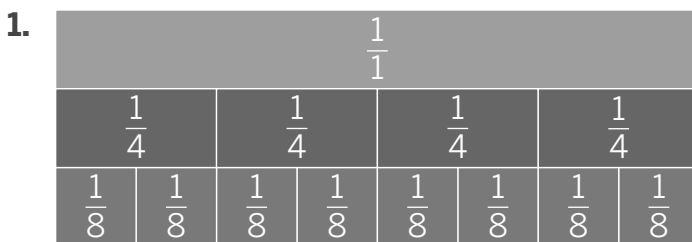
$\frac{1}{2}$ is equivalent to $\frac{3}{6}$.



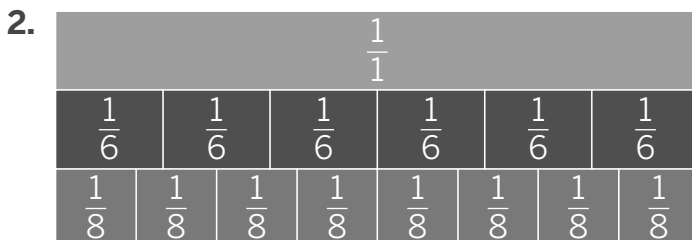
Guided Practice



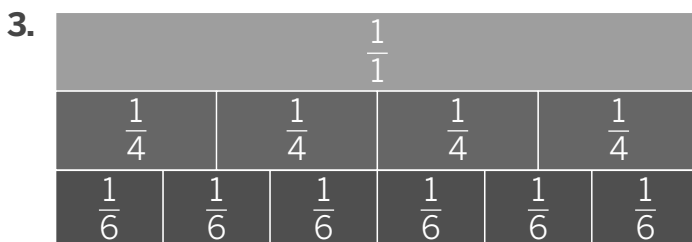
Identify an equivalent fraction to complete the statement.



$\frac{1}{4}$ is equivalent to $\frac{\quad}{8}$.



$\frac{3}{6}$ is equivalent to $\frac{\quad}{8}$.



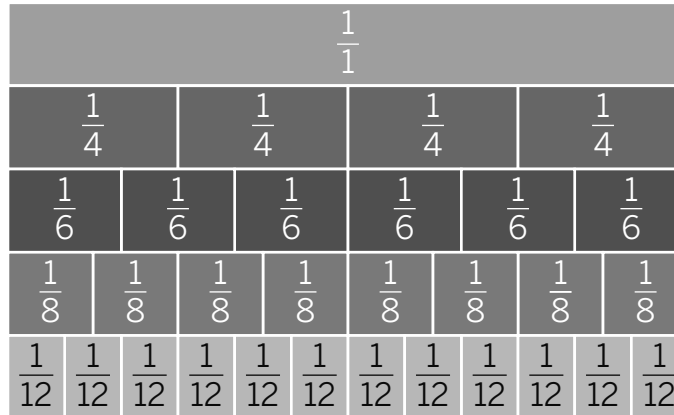
$\frac{2}{4}$ is equivalent to $\frac{\quad}{6}$.



Guided Practice



Use the fraction strips to name an equivalent fraction.



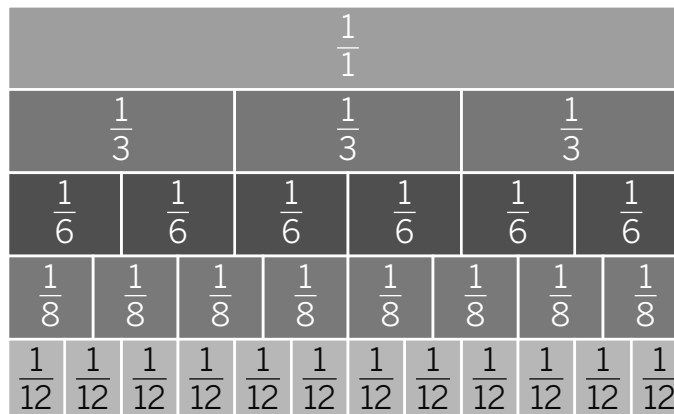
- Write a fraction that is equivalent to $\frac{1}{4}$. _____
- Write a fraction that is equivalent to $\frac{3}{6}$. _____
- Write a fraction that is equivalent to $\frac{3}{4}$. _____



Check



Use the fraction strips to name an equivalent fraction.



- Write a fraction that is equivalent to $\frac{1}{3}$. _____
- Write a fraction that is equivalent to $\frac{4}{6}$. _____

Finding Multiple Equivalent Fractions Using a Number Line

ML 2.06

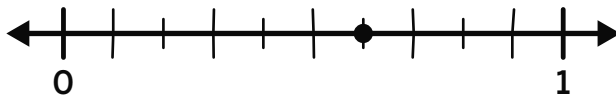


Modeled Review



Name: Kai

Write *two* fractions that are represented by the point on the number line.



$$\frac{3}{5}$$

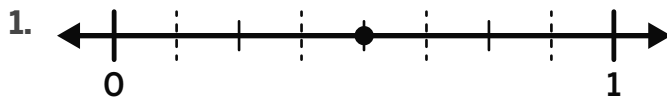
$$\frac{6}{10}$$



Guided Practice

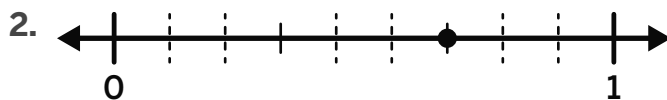


Write *two* equivalent fractions that are represented by the point on the number line.



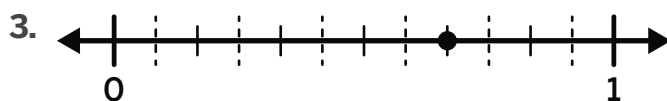
$$\frac{\quad}{4}$$

$$\frac{\quad}{8}$$



$$\frac{\quad}{\quad}$$

$$\frac{\quad}{9}$$



$$\frac{\quad}{\quad}$$

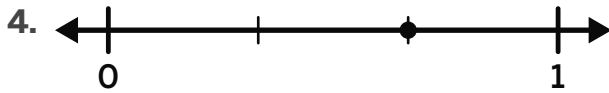
$$\frac{\quad}{\quad}$$



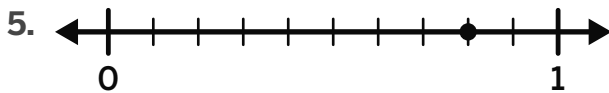
Guided Practice



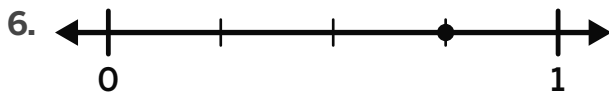
Circle the *two* equivalent fractions that are represented by the point on each number line.



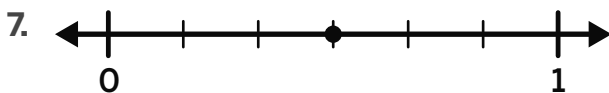
$$\frac{4}{6} \quad \frac{2}{5} \quad \frac{2}{3}$$



$$\frac{4}{5} \quad \frac{5}{10} \quad \frac{8}{10}$$



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



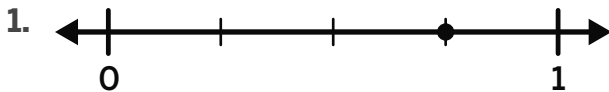
$$\frac{3}{6} \quad \frac{2}{3} \quad \frac{1}{2}$$



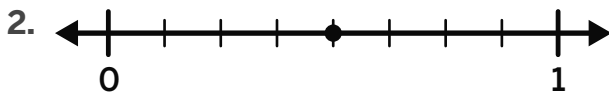
Check



Circle the *two* equivalent fractions that are represented by the point on each number line.



$$\frac{3}{5} \quad \frac{9}{12} \quad \frac{3}{4}$$



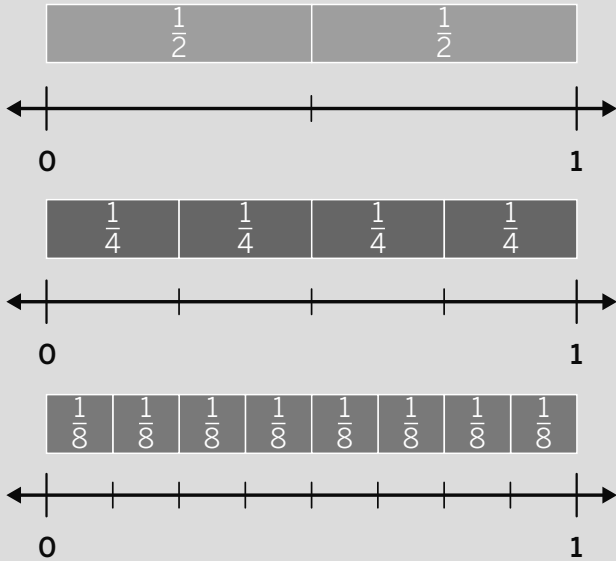
$$\frac{4}{8} \quad \frac{1}{2} \quad \frac{6}{8}$$

Finding Equivalent Fractions Using a Number Line

ML 2.07



Modeled Review



$\frac{1}{2}$ is equivalent to $\frac{4}{8}$.

$\frac{2}{4}$ is equivalent to $\frac{4}{8}$.

$\frac{2}{2}$ is equivalent to $\frac{8}{8}$.

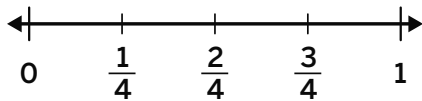
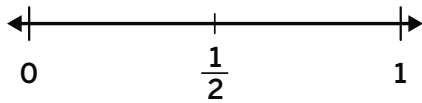


Guided Practice



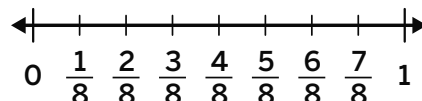
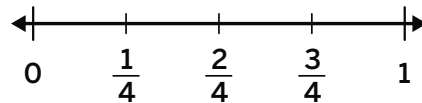
Determine if each statement is *true* or *false*.

1. $\frac{1}{2}$ is equivalent to $\frac{2}{4}$.



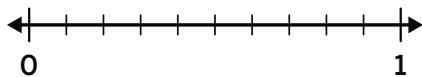
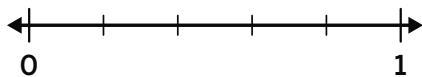
answer: _____

2. $\frac{2}{4}$ is equivalent to $\frac{3}{8}$.



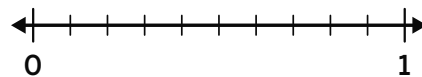
answer: _____

3. $\frac{3}{5}$ is equivalent to $\frac{7}{10}$.



answer: _____

4. $\frac{1}{5}$ is equivalent to $\frac{2}{10}$.



answer: _____

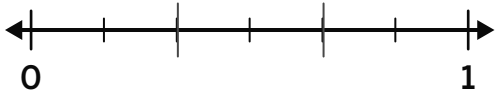


Guided Practice



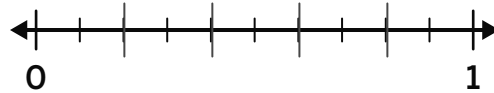
Use each number line to determine an equivalent fraction for each fraction.

5. $\frac{4}{6}$



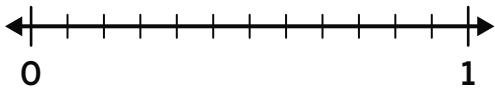
answer: _____

6. $\frac{4}{10}$



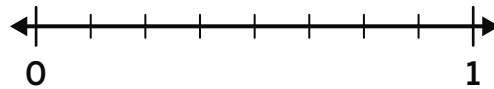
answer: _____

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



answer: _____

8. $\frac{6}{8}$



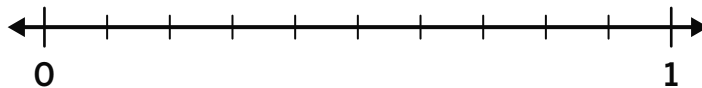
answer: _____



Check



Use the number line to determine an equivalent fraction for $\frac{6}{10}$.



answer: _____

Explaining Equivalent Fractions Using Models and Equations

ML 2.08

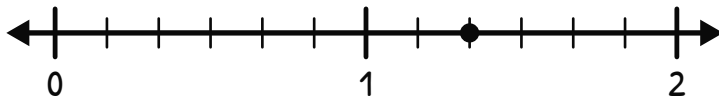


Modeled Review



Name: Eva

Are $\frac{4}{3}$ and $\frac{8}{6}$ equivalent? Show or explain your thinking.



$$\frac{4 \times 2}{3 \times 2} = \frac{8}{6}$$

I used multiplication equations to determine if the fractions are equivalent.

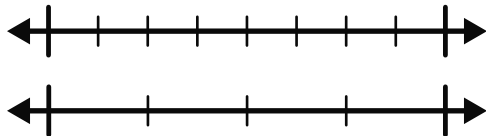


Guided Practice



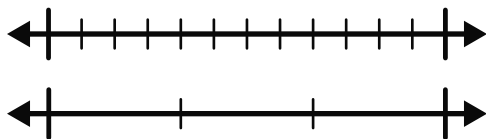
Complete the equations to determine if the fractions are equivalent. Use the number lines if they are helpful.

1. Are $\frac{6}{8}$ and $\frac{3}{4}$ equivalent? _____



$$\frac{6 \div 2}{8 \div 2} = \frac{\quad}{\quad}$$

2. Are $\frac{7}{12}$ and $\frac{2}{3}$ equivalent? _____



$$\frac{\quad \times 4}{\quad \times 4} = \frac{\quad}{12}$$

$$\frac{\quad}{12} \text{ does not equal } \frac{\quad}{12}$$

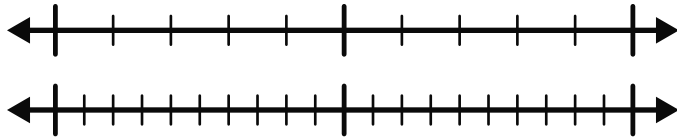


Guided Practice

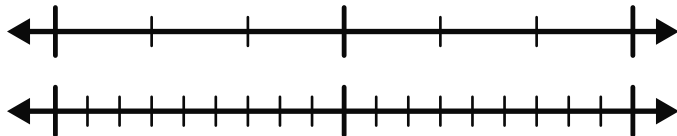


Determine if the fractions are equivalent. Show your thinking. Use the number lines if they are helpful.

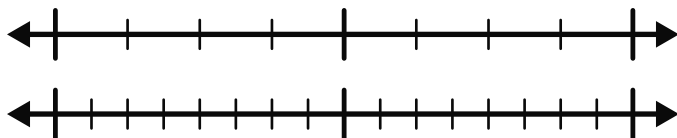
3. Are $\frac{9}{5}$ and $\frac{18}{10}$ equivalent? _____



4. Are $\frac{5}{3}$ and $\frac{12}{9}$ equivalent? _____



5. Are $\frac{6}{4}$ and $\frac{12}{8}$ equivalent? _____

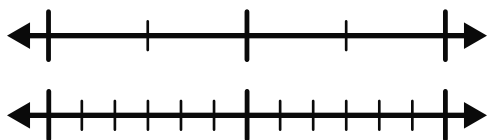


Check



Determine if the fractions are equivalent. Show your thinking. Use the number lines if they are helpful.

Are $\frac{3}{2}$ and $\frac{8}{6}$ equivalent? _____



Writing Equivalent Fractions Using Factors and Multiples

ML 2.09



Modeled Review

Name: Tristan

1. Use multiples to write *two* different fractions that are equivalent to $\frac{2}{3}$.

$$\frac{2 \times 3}{3 \times 3} = \frac{6}{9}$$

$$\frac{2 \times 4}{3 \times 4} = \frac{8}{12}$$

2. Use factors to write *two* different fractions that are equivalent to $\frac{10}{20}$.

$$\frac{10 \div 5}{20 \div 5} = \frac{2}{4}$$

$$\frac{10 \div 2}{20 \div 2} = \frac{5}{10}$$



Guided Practice



1. Use multiples to write *three* different fractions that are equivalent to $\frac{3}{8}$.

$$\frac{3 \times 2}{8 \times 2} = \underline{\quad}$$

$$\frac{3 \times 3}{8 \times 3} = \underline{\quad}$$

$$\frac{3 \times \quad}{8 \times \quad} = \underline{\quad}$$

2. Use multiples to write *three* different fractions that are equivalent to $\frac{5}{12}$.

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

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



Guided Practice



3. Use factors to write *three* different fractions that are equivalent to $\frac{12}{48}$.

$$\frac{12 \div 2}{48 \div 2} = \underline{\hspace{2cm}}$$

$$\frac{12 \div 4}{48 \div 4} = \underline{\hspace{2cm}}$$

$$\frac{12 \div 6}{48 \div 6} = \underline{\hspace{2cm}}$$

4. Use factors to write *three* different equations that are equivalent to $\frac{60}{30}$.

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

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



Check



1. Use multiples to write *two* different fractions that are equivalent to $\frac{7}{6}$.

2. Use factors to write *two* different equations that are equivalent to $\frac{64}{72}$.

Identifying Equivalent Fractions Using Factors and Multiples

ML 2.10



Modeled Review

Name: Shawn

Use factors and multiples to identify *two* other fractions that are equivalent to $\frac{12}{8}$.

$$\frac{12 \times 2}{8 \times 2} = \left(\frac{24}{16} \right)$$

$$\frac{12 \div 4}{8 \div 4} = \left(\frac{3}{2} \right)$$

answer: $\frac{24}{16}, \frac{3}{2}$



Guided Practice



Use factors and multiples to identify *two* other fractions that are equivalent to the given fraction.

1. $\frac{10}{4}$

2. $\frac{30}{20}$

$$\frac{10 \times 3}{4 \times 3} = \underline{\hspace{2cm}}$$

$$\frac{30 \times \quad}{20 \times \quad} = \underline{\hspace{2cm}}$$

$$\frac{10 \div 2}{4 \div 2} = \underline{\hspace{2cm}}$$

$$\frac{30 \div \quad}{20 \div \quad} = \underline{\hspace{2cm}}$$

answer:

answer:



Guided Practice



Use factors and multiples to identify *two* other fractions that are equivalent to the given fraction.

3. $\frac{20}{8}$

$$\frac{\quad \times}{\quad \times} = \frac{\quad}{\quad}$$

$$\frac{\quad \div}{\quad \div} = \frac{\quad}{\quad}$$

answer: _____

4. $\frac{18}{10}$

$$\frac{\quad \times}{\quad \times} = \frac{\quad}{\quad}$$

$$\frac{\quad \div}{\quad \div} = \frac{\quad}{\quad}$$

answer: _____

5. $\frac{24}{8}$

answer: _____

6. $\frac{9}{12}$

answer: _____



Check



Use factors and multiples to identify *two* other fractions that are equivalent to $\frac{18}{8}$.

answer: _____

Comparing Fractions With the Same Numerator or Denominator

ML 2.11

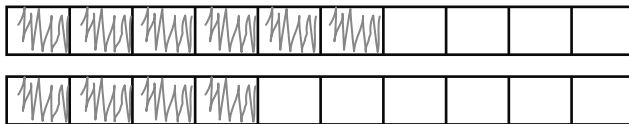


Modeled Review



Name: Eva

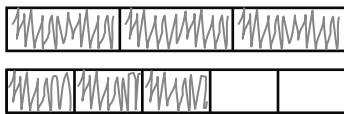
1. Which fraction is greater: $\frac{6}{10}$ or $\frac{4}{10}$? Show or explain your thinking.



6 is greater than 4.

answer: $\frac{6}{10}$

2. Which fraction is greater: $\frac{3}{3}$ or $\frac{3}{5}$? Show or explain your thinking.



Thirds are larger than fifths

answer: $\frac{3}{3}$

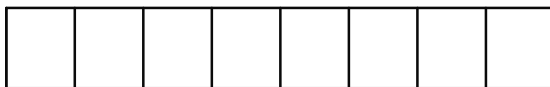


Guided Practice

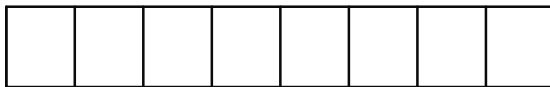


Which fraction is greater? Show your thinking. Use the fraction-strip diagram if it is helpful.

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



answer: _____



2. $\frac{7}{12}$ or $\frac{6}{12}$



answer: _____





Guided Practice



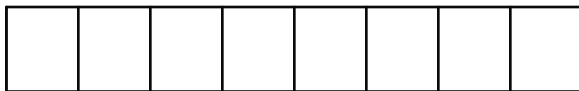
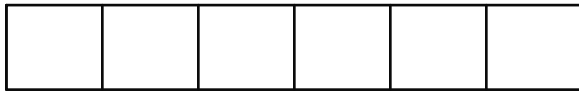
Which fraction is greater? Show your thinking. Use the fraction-strip diagram if it is helpful.

3. $\frac{8}{12}$ or $\frac{8}{10}$



answer: _____

4. $\frac{6}{6}$ or $\frac{6}{8}$



answer: _____

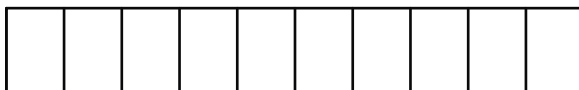


Check



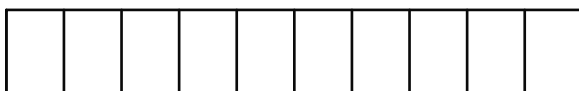
Which fraction is greater? Show your thinking. Use the fraction-strip diagram if it is helpful.

1. $\frac{7}{10}$ or $\frac{9}{10}$



answer: _____

2. $\frac{6}{8}$ or $\frac{6}{10}$



answer: _____

Comparing Fractions With Related Denominators

ML 2.12



Modeled Review



Name: Avery

Compare the fractions using $<$, $>$, or $=$.

$$\frac{2}{5} \text{ — } < \text{ — } \frac{6}{10}$$

multiples of 5: 5, (10), 15

$$\frac{2 \times 2}{5 \times 2} = \frac{4}{10}$$

multiples of 10: (10), 20, 30

$$\frac{4}{10} < \frac{6}{10}$$

common denominator: 10



Guided Practice

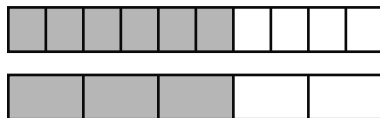


Compare the fractions using $<$, $>$, or $=$. Use the fraction strip diagrams if it is helpful.

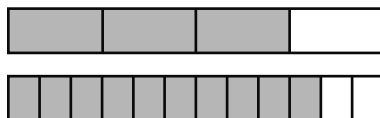
1. $\frac{5}{6} \text{ — } > \text{ — } \frac{8}{12}$



2. $\frac{6}{10} \text{ — } \frac{3}{5}$



3. $\frac{3}{4} \text{ — } \frac{10}{12}$



4. $\frac{2}{3} \text{ — } \frac{5}{9}$





Guided Practice



Compare the pair of fractions using $<$, $>$, or $=$.

5. $\frac{2}{5}$ — $\frac{7}{10}$

multiples of 5: 5, **10**, 15

$$\frac{2 \times 2}{5 \times 2} = \frac{4}{10}$$

multiples of 10: **10**, 20, 30

$$\frac{4}{10} < \frac{7}{10}$$

common denominator: 10

6. $\frac{4}{8}$ — $\frac{1}{2}$

multiples of 8: __, __, __

$$\frac{1 \times}{2 \times} = \underline{\quad}$$

multiples of 2: __, __, __, __

common denominator: __

7. $\frac{3}{4}$ — $\frac{8}{12}$

multiples of 4: __, __, __

multiples of 12: __, __, __

common denominator: __

8. $\frac{7}{9}$ — $\frac{2}{3}$



Check



Compare the pair of fractions using $<$, $>$, or $=$.

1. $\frac{4}{6}$ — $\frac{10}{12}$

2. $\frac{3}{9}$ — $\frac{1}{3}$

Comparing Fractions With Different Numerators and Denominators

ML 2.13



Modeled Review

Name: Maya

Compare the two fractions by writing equivalent fractions. Complete the comparison statement with $<$, $>$, or $=$.

$$\frac{3}{5} > \frac{4}{15}$$

$$\frac{3 \times 4}{5 \times 4} = \frac{12}{20} \quad \frac{4 \times 3}{15 \times 3} = \frac{12}{45}$$

Fractions can be compared by using common denominators or common numerators.



Guided Practice



Determine a common numerator or denominator to compare the two fractions. Then complete the comparison statement with $<$, $>$, or $=$.

1. $\frac{3}{5}$ $\frac{5}{6}$

$$\frac{3 \times 6}{5 \times 6} = \frac{\quad}{\quad} \quad \frac{5 \times 5}{6 \times 5} = \frac{\quad}{\quad}$$

equivalent fractions: $\frac{3}{5} = \frac{\square}{\square}$ $\frac{5}{6} = \frac{\square}{\square}$

2. $\frac{2}{3}$ $\frac{7}{5}$

$$\frac{2 \times 7}{3 \times 7} = \frac{\quad}{\quad} \quad \frac{7 \times 2}{5 \times 2} = \frac{\quad}{\quad}$$

equivalent fractions: $\frac{2}{3} = \frac{\square}{\square}$ $\frac{7}{5} = \frac{\square}{\square}$



Guided Practice



Determine a common numerator or denominator to compare the two fractions. Then complete the comparison statement with $<$, $>$, or $=$.

3. $\frac{6}{4}$ _____ $\frac{9}{7}$

$$\frac{\quad \times 6}{\quad \times 6} = \frac{36}{\quad} \qquad \frac{\quad \times 4}{\quad \times 4} = \frac{36}{\quad}$$

4. $\frac{4}{8}$ _____ $\frac{3}{6}$

$$\frac{4 \times \quad}{8 \times \quad} = \frac{\quad}{\quad} \qquad \frac{3 \times \quad}{6 \times \quad} = \frac{\quad}{\quad}$$

5. $\frac{3}{5}$ _____ $\frac{11}{15}$



Check



Determine a common numerator or denominator to compare the two fractions. Then complete the comparison statement with $<$, $>$, or $=$.

$\frac{2}{9}$ _____ $\frac{7}{4}$

Comparing and Ordering Fractions

ML 2.14



Modeled Review

Name: Shawn

Order the fractions $\frac{3}{5}$, $\frac{5}{3}$, $\frac{7}{10}$ from *least to greatest*. Show or explain your thinking.

$$\frac{3 \times 2}{5 \times 2} = \frac{6}{10}$$

equivalent fractions: $\frac{3}{5} = \frac{6}{10}$

Least $\frac{3}{5}$ $\frac{7}{10}$ $\frac{5}{3}$ Greatest

$\frac{5}{3}$ is the greatest fraction because it is the only fraction that is greater than 1. To figure out which of the two remaining fractions is greater, I used common denominators to compare.



Guided Practice



Order the fractions from *least to greatest*. Show or explain your thinking.

1. $\frac{5}{7}$, $\frac{9}{7}$, $\frac{3}{7}$

Least _____ $\frac{5}{7}$ _____ Greatest

2. $\frac{3}{5}$, $\frac{6}{4}$, $\frac{7}{10}$

equivalent fractions: $\frac{3}{5} = \frac{\square}{\square}$

Least _____ $\frac{6}{4}$ _____ Greatest



Guided Practice



Order the fractions from *least* to *greatest*. Show or explain your thinking.

3. $\frac{5}{6}, \frac{4}{5}, \frac{27}{30}$

equivalent fractions: $\frac{5}{6} = \square$ $\frac{4}{5} = \square$ $\frac{27}{30} = \square$

Least _____ Greatest

4. $\frac{8}{6}, \frac{11}{12}, \frac{10}{8}$

equivalent fractions: $\frac{8}{6} = \square$ $\frac{11}{12} = \square$ $\frac{10}{8} = \square$

Least _____ Greatest



Check



Order the fractions from *least* to *greatest*. Show or explain your thinking.

$\frac{5}{9}, \frac{9}{6}, \frac{2}{3}$

equivalent fractions: $\frac{5}{9} = \square$ $\frac{9}{6} = \square$ $\frac{2}{3} = \square$

Least _____ Greatest

Ordering Fractions on the Number Line

ML 2.15



Modeled Review



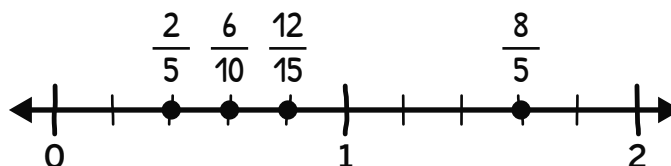
Name: Jada

Order the fractions from *least* to *greatest* on the number line.

$\frac{2}{5}$	$\frac{6}{10}$	$\frac{8}{5}$	$\frac{12}{15}$
---------------	----------------	---------------	-----------------

$$\frac{6 \div 2}{10 \div 2} = \frac{3}{5}$$

$$\frac{12 \div 3}{15 \div 3} = \frac{4}{5}$$



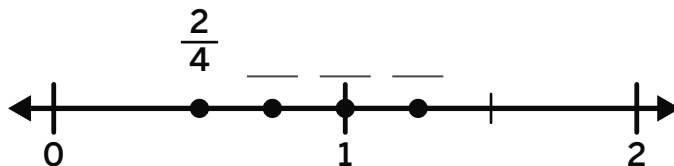
Guided Practice



Order the fractions from *least* to *greatest* on the number line.

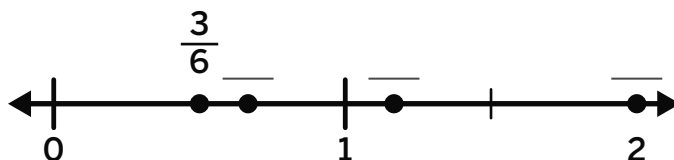
1.

$\frac{2}{4}$	$\frac{6}{8}$	$\frac{10}{8}$	$\frac{2}{2}$
---------------	---------------	----------------	---------------



2.

$\frac{3}{6}$	$\frac{14}{12}$	$\frac{6}{3}$	$\frac{4}{6}$
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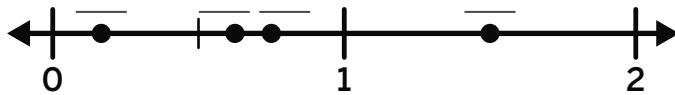
Guided Practice



Order the fractions from *least* to *greatest* on the number line.

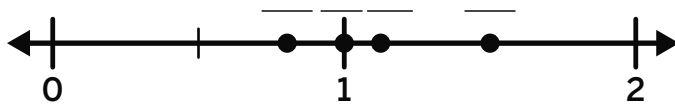
3.

$\frac{3}{4}$	$\frac{6}{4}$	$\frac{1}{6}$	$\frac{8}{12}$
---------------	---------------	---------------	----------------



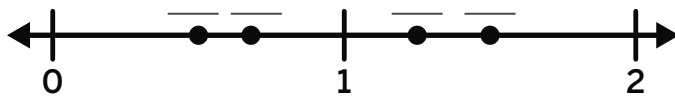
4.

$\frac{3}{2}$	$\frac{5}{5}$	$\frac{11}{10}$	$\frac{8}{10}$
---------------	---------------	-----------------	----------------



5.

$\frac{4}{6}$	$\frac{9}{6}$	$\frac{1}{2}$	$\frac{5}{4}$
---------------	---------------	---------------	---------------

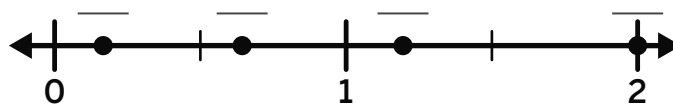


Check



Order the fractions from *least* to *greatest* on the number line.

$\frac{2}{10}$	$\frac{6}{5}$	$\frac{9}{15}$	$\frac{10}{5}$
----------------	---------------	----------------	----------------



Unit 3

Mini-Lessons

Adding and Subtracting Fractions With the Same Denominator

ML 3.02



Modeled Review



Name: Jack

Priya and Han ordered a small pan of lasagna. Priya ate $\frac{3}{6}$ of the lasagna. Han ate $\frac{2}{6}$. How much of the pan of lasagna did they eat altogether?



$$\frac{3}{6} + \frac{2}{6} = \frac{5}{6}$$

answer: $\frac{5}{6}$ of the pan of lasagna

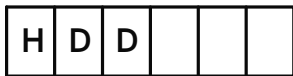


Guided Practice



Write an equation that matches the model and record your answer.

- Han has $\frac{1}{6}$ of a pan of lemon bars. Diego has $\frac{2}{6}$ of a pan of lemon bars. How much of a pan of lemon bars do they have altogether?



$$\frac{1}{6} + \frac{2}{6} = \frac{\square}{6}$$

answer: $\frac{\square}{6}$ of a pan of lemon bars

- Clare had $\frac{7}{10}$ of a party sub left. She ate $\frac{3}{10}$ of the remaining party sub for lunch. What fraction of the party sub does she have left now?



$$\frac{\square}{10} - \frac{\square}{10} = \underline{\quad}$$

answer: _____ of the party sub



Guided Practice



Represent the situation with a model and an equation. Then record your answer.

3. Santiago has $\frac{5}{8}$ of a breakfast casserole. Eva has $\frac{2}{8}$ of a breakfast casserole. How much of a breakfast casserole do they have altogether?

S	S	S	S	S	E	E	
---	---	---	---	---	---	---	--

answer: _____

4. Maya had $\frac{5}{6}$ of a pan of lasagna. She gave her brother $\frac{2}{6}$ of that lasagna for lunch. What fraction of a pan of lasagna does Maya have left now?

answer: _____

5. Tristan ate $\frac{3}{4}$ of a loaf of banana bread. Priya ate $\frac{1}{4}$ of a loaf of banana bread. How much of a loaf of banana bread did they eat altogether?

answer: _____



Check



Represent the situation with a model and an equation. Then record your answer.

- Avery had $\frac{6}{8}$ of a pan of lasagna left. She ate $\frac{4}{8}$ of the remaining lasagna for lunch. What fraction of the pan of lasagna does Avery have left now?

answer: _____

Decomposing Fractions Into Sums

ML 3.03



Modeled Review



Name: Clare

Decompose $\frac{9}{4}$ in *three* different ways. Write an addition expression for each decomposition.

$$\frac{1}{4} + \frac{1}{4} + \frac{1}{4} + \frac{1}{4} + \frac{1}{4} + \frac{1}{4} + \frac{1}{4} + \frac{1}{4} + \frac{1}{4}$$

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

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



Guided Practice



Decompose the number in *three* different ways.

1.

8 ones
5 ones + 3 ones
___ ones + ___ ones
___ ones + ___ ones + ___ ones

2.

8 thirds
5 thirds + 3 thirds
___ thirds + ___ thirds
___ thirds + ___ thirds + ___ thirds

3.

10 ones
___ ones + ___ ones
___ ones + ___ ones + ___ ones
___ ones + ___ ones + ___ ones

4.

10 fifths
___ fifths + ___ fifths
___ fifths + ___ fifths + ___ fifths
___ fifths + ___ fifths + ___ fifths



Guided Practice



Decompose each fraction in *three* different ways. Write an addition equation for each decomposition.

5. $\frac{3}{4} = \frac{1}{4} + \frac{1}{4} + \frac{1}{4}$

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

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

6. $\frac{12}{10} = \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}}$

$\frac{12}{10} = \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}}$

$\frac{12}{10} = \underline{\hspace{1cm}} + \underline{\hspace{1cm}}$

7. $\frac{8}{5} = \underline{\hspace{1cm}} + \underline{\hspace{1cm}}$

$\frac{8}{5} = \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}}$

$\frac{8}{5} = \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}}$

8. $\frac{9}{12} = \underline{\hspace{3cm}}$

$\frac{9}{12} = \underline{\hspace{3cm}}$

$\frac{9}{12} = \underline{\hspace{3cm}}$



Check



Decompose $\frac{6}{5}$ in *three* different ways. Write an addition expression for each decomposition.

Solving Real-World Problems Involving Fractions

ML 3.04



Modeled Review

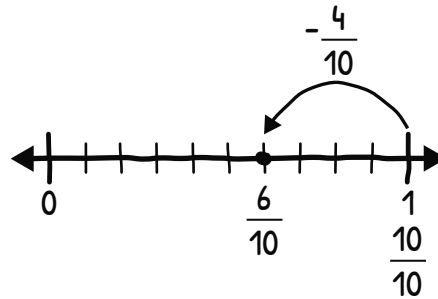


Name: Santiago

Jack has 1 foot of rope. If he uses $\frac{4}{10}$ feet of rope on a project, how much rope does he have left?

equation: $\frac{10}{10} - \frac{4}{10} = \frac{6}{10}$

answer: $\frac{6}{10}$ feet

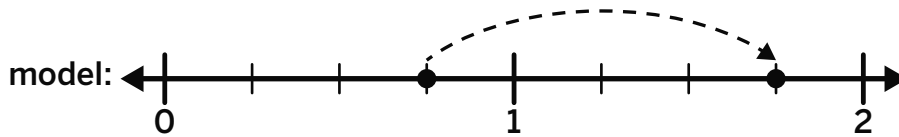


Guided Practice



Represent each situation with a model and an equation. Then write the answer.

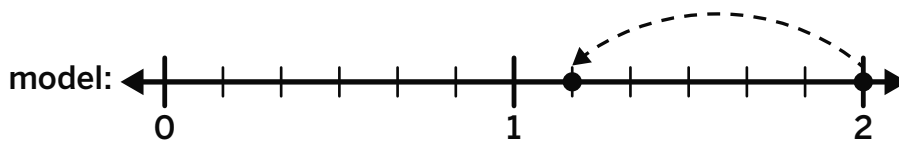
- Diego waters his plant. He uses $\frac{3}{4}$ of a cup of water on Monday and $\frac{4}{4}$ of a cup on Thursday. How much water does he give the plant?



equation: $\frac{3}{4} + \frac{4}{4} =$ _____

answer: _____ cups

- Avery has 2 feet of ribbon to make bows for her hair. She uses $\frac{5}{6}$ feet to make a new bow. How much ribbon does Avery have left to make bows?



equation: $\frac{12}{6} -$ _____ = _____

answer: _____

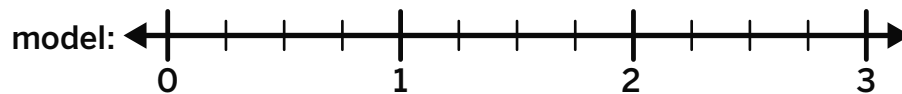


Guided Practice



Represent each situation with a model and an equation. Then write the answer.

3. Priya is adding water to her fish tank. She adds $\frac{6}{4}$ cups first, and then adds another $\frac{3}{4}$ cups. How much water does she add to the fish tank?



equation: _____

answer: _____

4. Clare had $\frac{10}{8}$ cups of food for her cat. She fed the cat $\frac{7}{8}$ cups of food this week. How much food does she have left?

model:

equation: _____

answer: _____



Check



Represent the situation with a model and an equation. Then write the answer.

- Han picks $\frac{8}{5}$ pounds of strawberries on Wednesday and $\frac{6}{5}$ pounds on Friday. How many pounds of strawberries does he pick?

model:

equation: _____

answer: _____

Adding and Subtracting Fractions and Mixed Numbers

ML 3.05



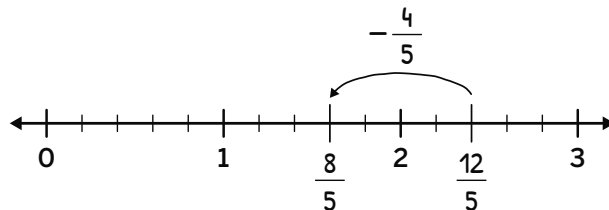
Modeled Review



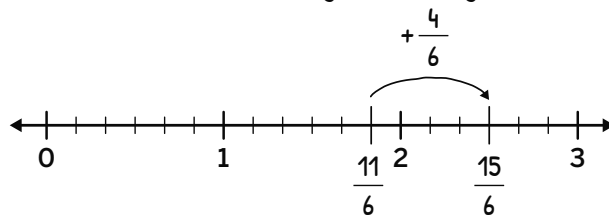
Name: Clare

Determine the sum or difference. Use the number line if it is helpful.

1. $\frac{12}{5} - \frac{4}{5} = \frac{8}{5}$



2. $\frac{11}{6} + \frac{4}{6} = \frac{15}{6} = 2\frac{3}{6}$

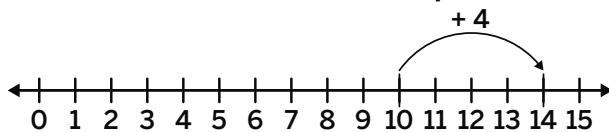


Guided Practice

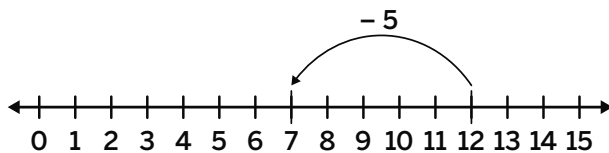


Determine the sum or difference. Use the number line if it is helpful.

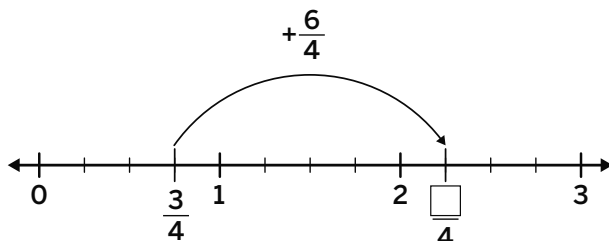
1. $10 + 4 = \underline{\hspace{2cm}}$



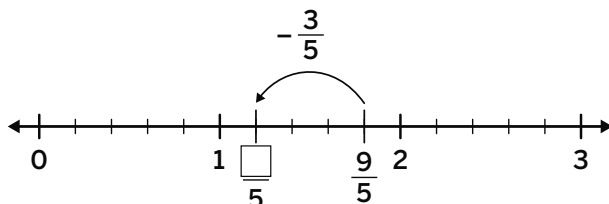
2. $12 - 5 = \underline{\hspace{2cm}}$



3. $\frac{3}{4} + \frac{6}{4} = \underline{\hspace{2cm}}$



4. $\frac{9}{5} - \frac{3}{5} = \underline{\hspace{2cm}}$



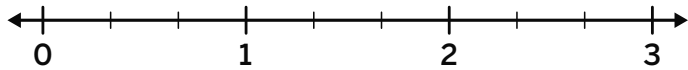


Guided Practice

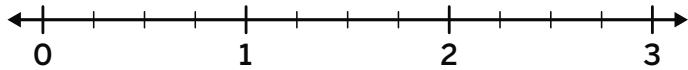


Determine the sum or difference. Use the number line if it is helpful.

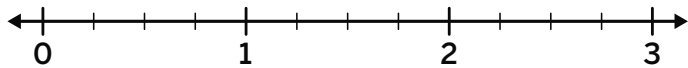
5. $1\frac{2}{3} + \frac{2}{3} =$ _____



6. $2 - \frac{3}{4} =$ _____



7. $2\frac{1}{4} - \frac{3}{4} =$ _____

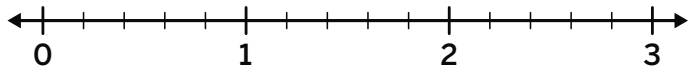


Check

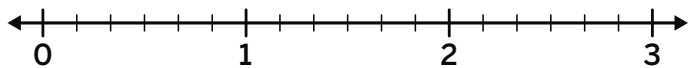


Determine the sum or difference. Use the number line if it is helpful.

1. $1\frac{4}{5} + \frac{2}{5} =$ _____



2. $1\frac{5}{6} - \frac{3}{6} =$ _____



Adding and Subtracting Fractions, Whole Numbers, and Mixed Numbers

ML 3.06



Modeled Review



Name: Clare

Calculate the difference.

$$2\frac{5}{6} - \frac{2}{6} = \underline{2\frac{3}{6}}$$



$$2 - 0 = 2$$

$$\frac{5}{6} - \frac{2}{6} = \frac{3}{6}$$

$$2 + \frac{3}{6} = 2\frac{3}{6}$$

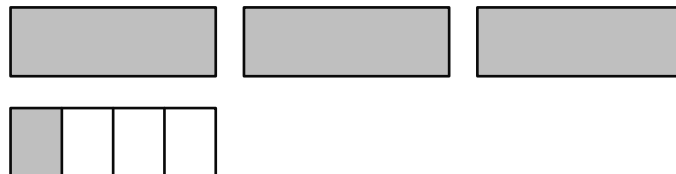


Guided Practice



Calculate each sum or difference.

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



2. $1\frac{2}{6} + \frac{3}{6} = \underline{\hspace{2cm}}$



$\frac{2}{6} + \frac{3}{6} = \underline{\hspace{2cm}}$ $1 + \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$



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

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

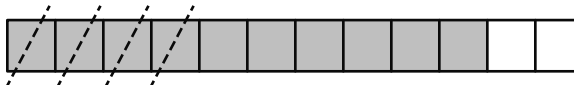


Guided Practice

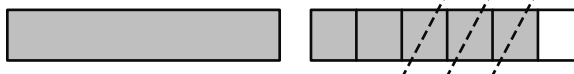


Calculate each sum or difference.

4. $\frac{10}{12} - \frac{4}{12} =$ _____



5. $1\frac{5}{6} - \frac{3}{6} =$ _____



6. $4\frac{2}{5} - 1\frac{1}{5} =$ _____

7. $3\frac{3}{4} - 1\frac{2}{4} =$ _____



Check



Calculate each sum or difference. Draw a diagram if it is helpful.

1. $2\frac{3}{6} + 1\frac{2}{6} =$ _____

2. $4\frac{4}{5} - 1\frac{2}{5} =$ _____

Decomposing Fractions to Add and Subtract

ML 3.07



Modeled Review



Name: Tristan

Calculate the difference. Show your thinking.

$$5\frac{1}{4} - \frac{2}{4} = \underline{4\frac{3}{4}}$$



$$\begin{aligned} 5\frac{1}{4} - \frac{2}{4} \\ 5\frac{1}{4} - \frac{1}{4} = 5 \\ 5 - \frac{1}{4} = 4 + \frac{4}{4} - \frac{1}{4} \\ 4\frac{3}{4} \end{aligned}$$



Guided Practice



Calculate each sum. Show your thinking.

1. $2\frac{1}{8} + 3\frac{4}{8} = \underline{\hspace{2cm}}$

$$2\frac{1}{8} + 3 = 5\frac{1}{8}$$

$$5\frac{1}{8} + \underline{\hspace{1cm}} = \underline{\hspace{1cm}}$$

2. $4\frac{3}{5} + 2\frac{1}{5} = \underline{\hspace{2cm}}$

$$4\frac{3}{5} + 2 = \underline{\hspace{2cm}}$$

$$\underline{\hspace{1cm}} + \frac{1}{5} = \underline{\hspace{1cm}}$$

3. $5\frac{3}{7} + \frac{3}{7} = \underline{\hspace{2cm}}$

$$5\frac{3}{7} + \underline{\hspace{1cm}} = \underline{\hspace{1cm}}$$

4. $8\frac{1}{6} + 1\frac{3}{6} = \underline{\hspace{2cm}}$



Guided Practice



Calculate each difference. Show your thinking.

5. $6\frac{1}{4} - 2\frac{3}{4} =$ _____

$$6\frac{1}{4} = 5 + \frac{4}{4} + \frac{1}{4}$$

$$5\frac{5}{4} - 2\frac{3}{4}$$

$$5 - 2 =$$

$$\frac{5}{4} - \frac{3}{4} =$$

6. $2\frac{3}{6} - 1\frac{4}{6} =$ _____

$$2\frac{3}{6} = 1 + \frac{\quad}{6} + \frac{\quad}{6}$$

$$\frac{\quad}{6} - 1\frac{4}{6}$$

7. $6 - \frac{2}{8} =$ _____

$$6 = \frac{\quad}{8} + \frac{\quad}{8}$$

8. $7\frac{4}{9} - 2\frac{8}{9} =$ _____



Check



Calculate each sum or difference. Show your thinking.

1. $2\frac{2}{6} + 1\frac{3}{6} =$ _____

2. $4 - 1\frac{4}{5} =$ _____

Connecting Descriptions, Diagrams, and Expressions for Groups of Fractions

ML 3.08

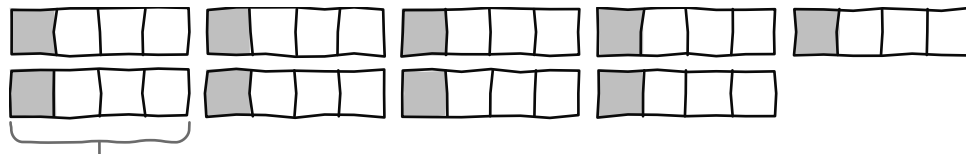


Modeled Review



Name: Han

Jada had 9 plates. She put $\frac{1}{4}$ of a sandwich on each plate. Create a drawing and write an addition and multiplication expression to represent the situation.



addition expression: $\frac{1}{4} + \frac{1}{4} + \frac{1}{4} + \frac{1}{4} + \frac{1}{4} + \frac{1}{4} + \frac{1}{4} + \frac{1}{4} + \frac{1}{4}$

multiplication expression: $9 \times \frac{1}{4}$

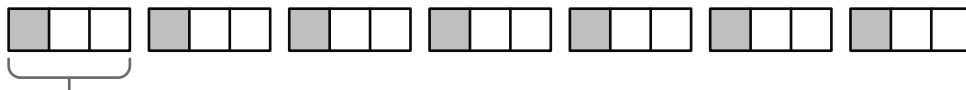


Guided Practice



Complete the diagram and write an addition and multiplication expression to represent each situation.

- Clare had 7 plates. She put $\frac{1}{3}$ of a sandwich on each plate.

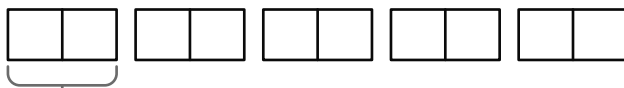


1 sandwich

addition expression: $\frac{1}{3} + \frac{1}{3} + \frac{1}{3} + \frac{1}{3} + \frac{1}{3} + \frac{1}{3} + \frac{1}{3}$

multiplication expression: _____

- Diego had 5 plates. He put $\frac{1}{2}$ of a sandwich on each plate.



1 sandwich

addition expression: $\frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2}$

multiplication expression: _____



Guided Practice



Write an addition and multiplication expression to represent each situation.

3. Tristan had 8 plates. He put $\frac{1}{5}$ of a piece on each plate. How much pie did he put on the plates?

addition expression: _____

multiplication expression: _____

4. Eva scooped $\frac{1}{2}$ cup of oats 6 times. How many cups of oats did she scoop?

addition expression: _____

multiplication expression: _____



Check



Write an addition and multiplication expression to represent each situation.

1. Santiago had 4 plates. He put $\frac{1}{6}$ of a veggie pizza on each plate. How much of a veggie pizza did he put on the plates?

addition expression: _____

multiplication expression: _____

2. Jada poured $\frac{1}{3}$ cup of juice 8 times. How many cups of juice did she pour?

addition expression: _____

multiplication expression: _____

Using Diagrams and Expressions to Multiply Fractions

ML 3.09

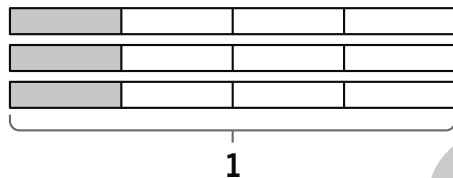


Modeled Review



Name: Shawn

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



expression: $3 \times \frac{1}{4}$

value: $\frac{3}{4}$

3 groups of $\frac{1}{4}$



Guided Practice

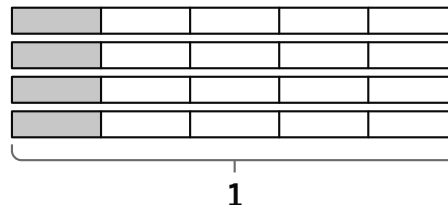


1. Match each expression with its diagram.

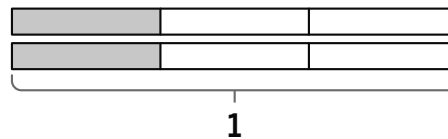
Expression

Diagram

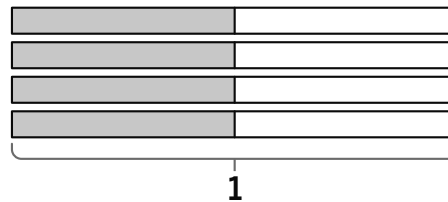
A. $2 \times \frac{1}{4}$



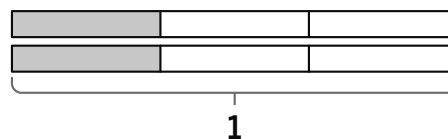
B. $2 \times \frac{1}{3}$



C. $4 \times \frac{1}{5}$



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





Guided Practice



2. Write a multiplication expression to represent each diagram. Then determine its value.

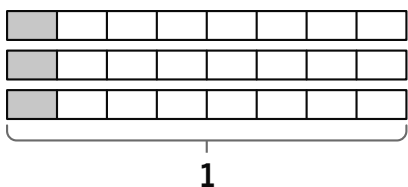
Diagram	Expression	Value
	$4 \times \frac{1}{4}$	
	$2 \times \underline{\quad}$	



Check



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



expression: _____

value: _____

Multiplying Whole Numbers and Fractions

ML 3.10

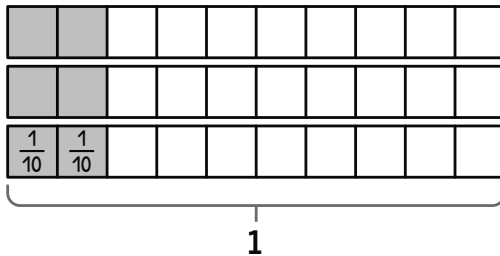


Modeled Review

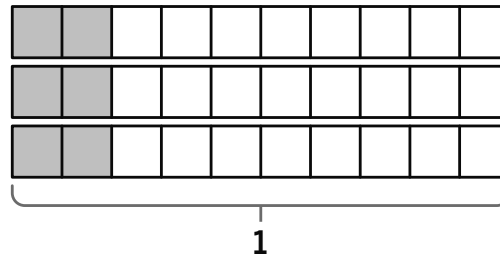


Name: Santiago

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



expression: $6 \times \frac{2}{10}$



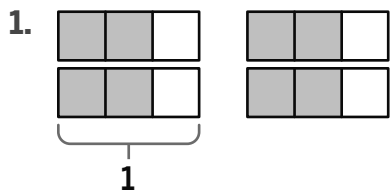
product: $\frac{12}{10}$



Guided Practice

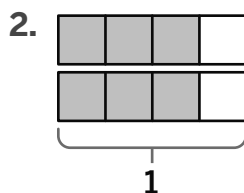


Write a multiplication expression to represent the diagram. Then determine the product of the expression.



expression: $4 \times \frac{2}{3}$

product: _____



expression: _____

product: _____



Guided Practice



Determine the product. Draw a diagram if it is helpful.

3. $4 \times \frac{1}{3} =$ _____

4. $6 \times \frac{3}{5} =$ _____

5. $2 \times \frac{3}{7} =$ _____

6. $3 \times \frac{4}{5} =$ _____



Check



Determine the product. Draw a diagram if it is helpful.

1. $5 \times \frac{2}{3} =$ _____

2. $3 \times \frac{2}{7} =$ _____

Writing Equivalent Multiplication Expressions

ML 3.11



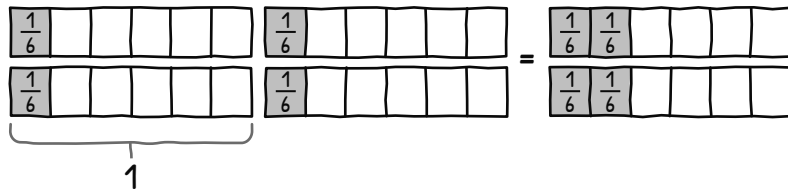
Modeled Review



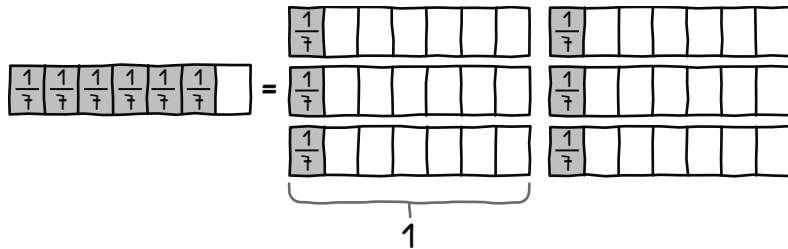
Name: Kai

Explain or show why the equations are true.

1. $4 \times \frac{1}{6} = 2 \times \frac{2}{6}$



2. $\frac{6}{7} = 6 \times \frac{1}{7}$



Guided Practice



Fill in the box to make each equation true.

1. $12 \times \frac{1}{9} = 6 \times \frac{\square}{9}$

2. $\square \times \frac{1}{4} = 5 \times \frac{3}{4}$

3. $6 \times \frac{1}{3} = \square \times \frac{\square}{3}$

4. $10 \times \frac{1}{7} = \square \times \frac{\square}{7}$

5. $\square \times \frac{1}{5} = 4 \times \frac{2}{5}$

6. $\square \times \frac{1}{6} = 3 \times \frac{2}{6}$



Guided Practice



Fill in the blank to make each equation true.

7. $\frac{4}{3} = \underline{\quad} \times \frac{1}{3}$

8. $\frac{7}{5} = \underline{\quad} \times \frac{1}{5}$

9. $\frac{11}{4} = \underline{\quad} \times \frac{1}{4}$

10. $\underline{\quad} = 9 \times \frac{1}{3}$

11. $\underline{\quad} = 8 \times \frac{1}{2}$

12. $\underline{\quad} = 14 \times \frac{1}{6}$

13. $\frac{6}{4} = 6 \times \underline{\quad}$

14. $\frac{5}{3} = 5 \times \underline{\quad}$

15. $\frac{10}{8} = 10 \times \underline{\quad}$

16. $\frac{12}{5} = 12 \times \underline{\quad}$



Check



Fill in the blank to make each equation true. Use a diagram if it is helpful.

1. $\underline{\quad} \times \frac{1}{4} = 4 \times \frac{2}{4}$

2. $\underline{\quad} = 4 \times \frac{1}{5}$

Applying Multiplication of Fractions to Real-World Problems

ML 3.12



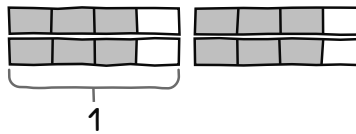
Modeled Review



Name: Han

Represent the situation with a model and an equation. Then write the answer.

Jada needs $\frac{3}{4}$ cup of blueberries for 1 batch of muffins. She wants to make 4 batches of blueberry muffins. How many cups of blueberries will Jada need?



equation: $4 \times \frac{3}{4} = \frac{12}{4}$

answer: $\frac{12}{4}$, so she needs 3 cups of blueberries.

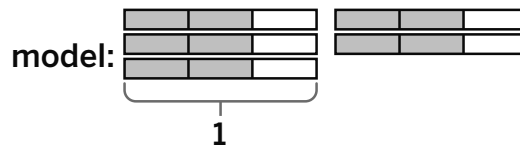


Guided Practice



Write an equation that matches the situation and model. Then write the answer.

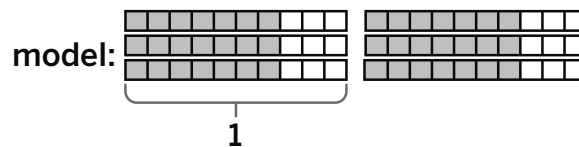
- Diego used $\frac{2}{3}$ of a cup of berries to make one batch of yogurt. How many cups are needed to make 5 batches?



equation: $\frac{2}{3} \times 5 =$ _____

answer: _____ cups

- Avery ran $\frac{7}{10}$ of a mile every day for 6 days. What is the total distance Avery ran over the 6 days?



equation: _____

answer: _____



Guided Practice



Represent each situation with a model and an equation. Then write the answer.

3. Jack used $\frac{1}{2}$ of a large onion to make one pot of soup. How many onions are needed to make 3 pots?

model:

equation: _____ answer: _____

4. A dentist spends $\frac{2}{3}$ of an hour to complete a teeth cleaning. If he has 4 cleanings scheduled, how many hours will it take?

model:

equation: _____ answer: _____

5. Clare runs $\frac{4}{5}$ of a mile every day for 5 days. What is the total distance she ran after 5 days?

model:

equation: _____ answer: _____



Check



Represent the situation with a model and an equation. Then write the answer.

- Han swam $\frac{3}{4}$ of a kilometer every day for 5 days. What is the total distance Han swam over 5 days?

model:

equation: _____ answer: _____

Adding Tenths and Hundredths Using Equivalent Fractions

ML 3.13



Modeled Review

Name: Kai

Evaluate each expression. Show your thinking.

1. $\frac{1}{10} + \frac{50}{100}$

$$\frac{50}{100} = \frac{5}{10}$$

$$\frac{1}{10} + \frac{5}{10} = \frac{6}{10}$$

answer: $\frac{6}{10}$

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

$$\frac{7}{10} = \frac{70}{100}$$

$$\frac{18}{100} + \frac{70}{100} = \frac{88}{100}$$

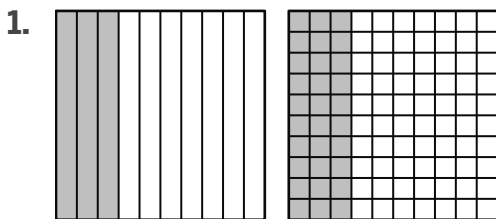
answer: $\frac{88}{100}$



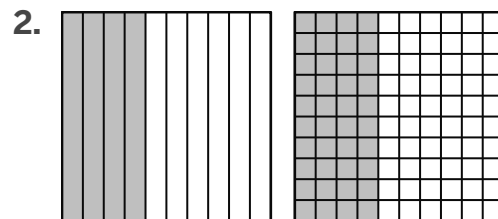
Guided Practice



Generate an equivalent fraction.



$$\frac{3}{10} = \frac{\square}{100}$$



$$\frac{\square}{10} = \frac{40}{100}$$

3. $\frac{7}{10} = \frac{\square}{100}$

4. $\frac{\square}{10} = \frac{60}{100}$

5. $\frac{9}{10} = \frac{\square}{100}$

6. $\frac{\square}{10} = \frac{80}{100}$



Guided Practice



Evaluate each expression. Show your thinking.

Expression	Workspace	Answer
$\frac{4}{10} + \frac{3}{10}$		
$\frac{50}{100} + \frac{10}{100}$		
$\frac{2}{10} + \frac{42}{100}$	$\frac{2}{10} = \frac{20}{100}$ $\frac{20}{100} + \frac{42}{100} = \frac{62}{100}$	
$\frac{60}{100} + \frac{5}{10}$		
$\frac{5}{10} + \frac{65}{100}$		
$\frac{70}{100} + \frac{2}{10}$		



Check



Evaluate each expression. Show your thinking.

Expression	Workspace	Answer
$\frac{4}{10} + \frac{20}{100}$		
$\frac{24}{100} + \frac{3}{10}$		

Adding Tenths and Hundredths

ML 3.14



Modeled Review

Name: Dylan

Use tenths or hundredths to determine the fraction that makes the equation true. Show your thinking.

$$1. \quad \frac{8}{10} + \frac{14}{100} = \underline{\frac{94}{100}}$$

$$\frac{8}{10} = \frac{80}{100}$$

$$\frac{80}{100} + \frac{14}{100} = \frac{94}{100}$$

$$2. \quad \frac{2}{10} + \frac{70}{100} = \underline{\frac{9}{10}}$$

$$\frac{70}{100} = \frac{7}{10}$$

$$\frac{2}{10} + \frac{7}{10} = \frac{9}{10}$$



Guided Practice



Use tenths or hundredths to determine the fraction that makes the equation true. Show your thinking.

$$1. \quad \frac{40}{100} + \frac{1}{10} = \underline{\hspace{2cm}}$$

$$2. \quad \frac{6}{10} + \frac{30}{100} = \underline{\hspace{2cm}}$$

$$3. \quad \frac{5}{10} + \frac{20}{100} = \underline{\hspace{2cm}}$$

$$4. \quad \frac{10}{100} + \frac{7}{10} = \underline{\hspace{2cm}}$$



Guided Practice



Use tenths or hundredths to determine the fraction that makes the equation true. Show your thinking.

5. $\frac{24}{100} + \frac{6}{10} =$ _____

6. $\frac{2}{10} + \frac{30}{100} =$ _____

7. $\frac{5}{10} + \frac{40}{100} =$ _____

8. $\frac{27}{100} + \frac{2}{10} =$ _____

9. $\frac{3}{10} + \frac{65}{100} =$ _____

10. $\frac{18}{100} + \frac{1}{10} =$ _____



Check



Use tenths or hundredths to determine the fraction that makes the equation true. Show your thinking.

1. $\frac{26}{100} + \frac{4}{10} =$ _____

2. $\frac{40}{100} + \frac{3}{10} =$ _____

Creating Line Plots

ML 3.15



Modeled Review



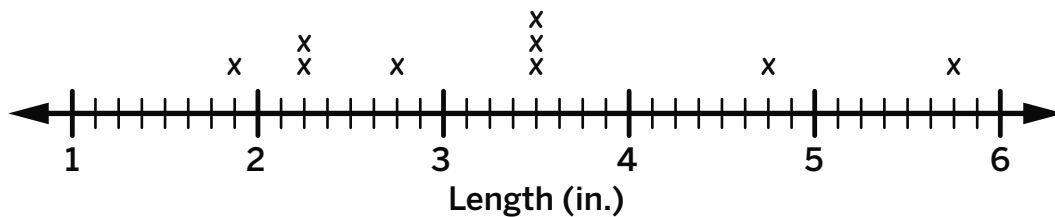
Name: Avery

Tristan collected leaves that had fallen from the trees in the local park. He recorded the lengths of the leaves in inches.

- | | | | | | | | | |
|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| $3\frac{4}{8}$ | $1\frac{7}{8}$ | $3\frac{4}{8}$ | $5\frac{6}{8}$ | $2\frac{2}{8}$ | $2\frac{2}{8}$ | $4\frac{6}{8}$ | $3\frac{4}{8}$ | $2\frac{6}{8}$ |
|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|

Represent Tristan's data on the line plot. Include a title.

Tristan's Leaves



Guided Practice

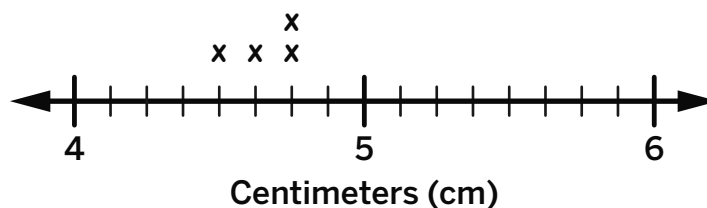


Complete the data on the line plot.

- Eva collected seashells and then measured each seashell in centimeters.

- | | | | | | | | | | |
|----------------|----------------|----------------|----------------|----------------|----------------|---|----------------|----------------|----------------|
| $4\frac{4}{8}$ | $4\frac{5}{8}$ | $4\frac{6}{8}$ | $4\frac{6}{8}$ | $4\frac{7}{8}$ | $5\frac{3}{8}$ | 6 | $5\frac{6}{8}$ | $5\frac{5}{8}$ | $5\frac{1}{8}$ |
|----------------|----------------|----------------|----------------|----------------|----------------|---|----------------|----------------|----------------|

Eva's Seashells





Guided Practice



Represent the data on each line plot.

2. Diego collected caterpillars and then measured each caterpillar in centimeters.

$1\frac{1}{8}$

$1\frac{6}{8}$

$2\frac{1}{8}$

$1\frac{3}{8}$

$2\frac{1}{8}$

$1\frac{7}{8}$

$2\frac{1}{8}$

$2\frac{3}{8}$

$1\frac{3}{8}$

$1\frac{6}{8}$

Diego's Caterpillars



Centimeters (cm)

3. Dylan collected pinecones and then measured each pinecone in centimeters.

$3\frac{3}{8}$

$3\frac{1}{8}$

$3\frac{3}{8}$

$4\frac{1}{8}$

$3\frac{5}{8}$

$4\frac{4}{8}$

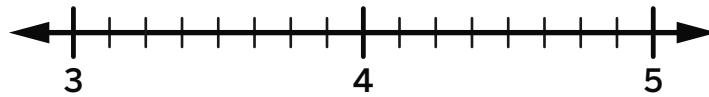
$3\frac{2}{8}$

$4\frac{4}{8}$

$3\frac{3}{8}$

$4\frac{6}{8}$

Dylan's Pinecones



Centimeters (cm)



Check



Represent the data on the line plot.

Clare collected butterflies and recorded their wingspan lengths in inches.

$1\frac{2}{8}$

$1\frac{5}{8}$

$2\frac{3}{8}$

$1\frac{3}{8}$

$2\frac{5}{8}$

$1\frac{7}{8}$

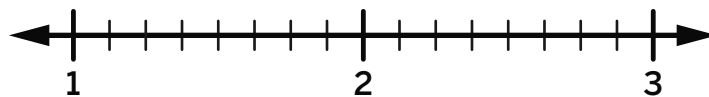
$2\frac{5}{8}$

$2\frac{6}{8}$

$2\frac{5}{8}$

$1\frac{3}{8}$

Clare's Butterflies



Inches (in.)

Solving Problems Involving Measurement Data on Line Plots

ML 3.16

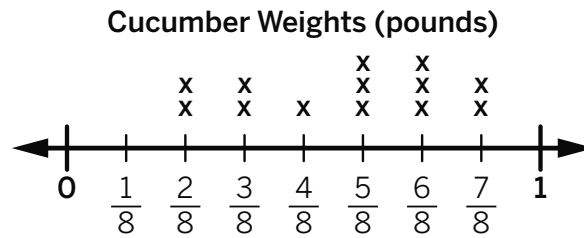


Modeled Review



Name: Jada

Use the line plot to answer each question.



1. What is the combined weight of all of the cucumbers that weigh $\frac{5}{8}$ pounds?

$$\frac{5}{8} + \frac{5}{8} + \frac{5}{8} = \frac{15}{8} \text{ pounds}$$

2. How much more does the heaviest cucumber weigh than the lightest cucumber?

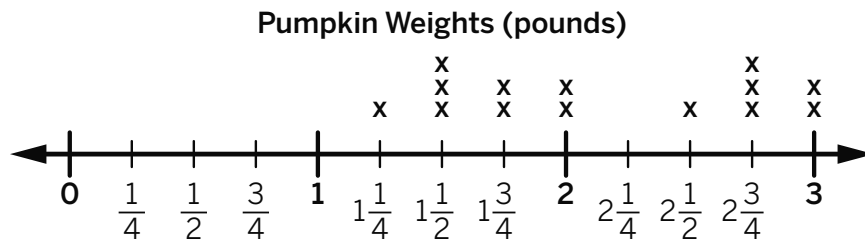
$$\frac{7}{8} - \frac{2}{8} = \frac{5}{8} \text{ pounds}$$



Guided Practice



Use the line plot to answer each of the questions.



- How many pumpkins are shown in the line plot? _____
- What is the heaviest pumpkin? _____
- How much more does the heaviest pumpkin weigh than the lightest pumpkin? _____

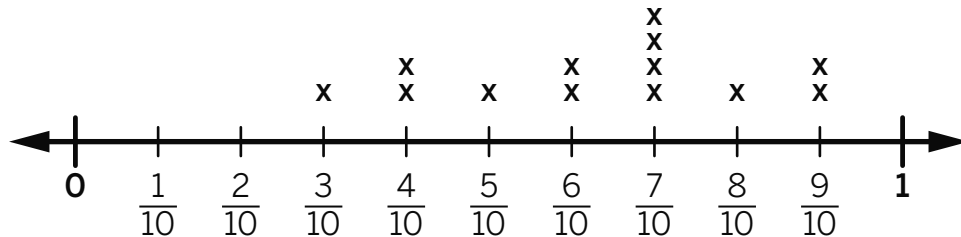


Guided Practice



Use the line plot to answer each question.

Caterpillar Lengths (inches)



- How many caterpillars are shown in the line plot? _____
- What is the combined length of the two longest caterpillars? _____
- What is the combined length of the two shortest caterpillars? _____
- How much longer is the longest caterpillar than the shortest caterpillar? _____

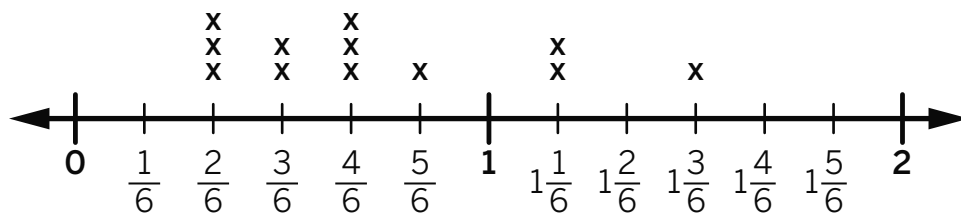


Check



Use the line plot to answer each question.

Grapefruit Weights (pounds)



- How much more does the heaviest grapefruit weigh than the lightest grapefruit? _____
- What is the combined weight of all of the grapefruits that weigh $\frac{4}{6}$ pounds? _____

Unit 4

Mini-Lessons

Writing Decimal Numbers to Tenths

ML 4.02

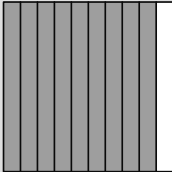


Modeled Review



Name: Jack

The large square represents 1. Write a fraction and decimal that represent the diagram.

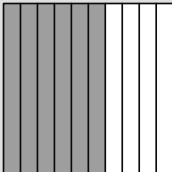
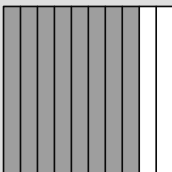
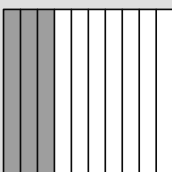
Diagram	Fraction	Decimal
	$\frac{9}{10}$	0.9



Guided Practice



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

Diagram	Fraction	Decimal
	$\frac{6}{10}$	
	$\frac{8}{10}$	
	$\frac{3}{10}$	



Guided Practice



2. Each large square represents 1. Write a fraction and decimal that represent the diagram.

Diagram	Fraction	Decimal
	$1\frac{2}{10}$	1. ____



Check



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

Diagram	Fraction	Decimal

Writing Decimal Numbers to Hundredths

ML 4.03

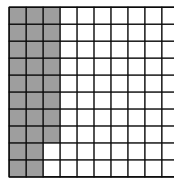


Modeled Review



Name: Diego

The large square represents 1. Use the diagram to complete Problems 1–2.



1. What fraction does the shaded part of the diagram represent? $\frac{28}{100}$
2. Write that fraction as a decimal. 0.28



Guided Practice



1. Each large square represents 1. Write a fraction and decimal that represent the diagram.

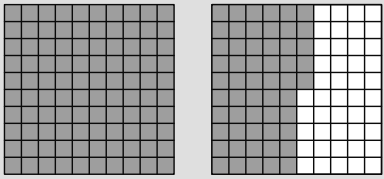
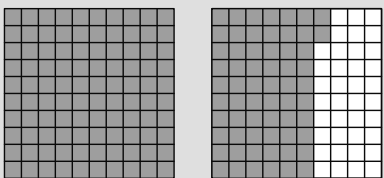
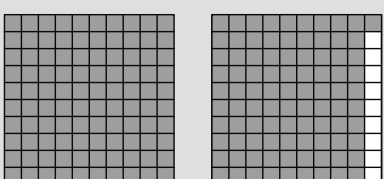
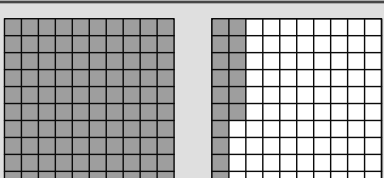
Diagram	Fraction	Decimal
	$\frac{74}{100}$	
		0.43



Guided Practice



2. Each large square represents 1. Write a fraction and decimal that represent the diagram.

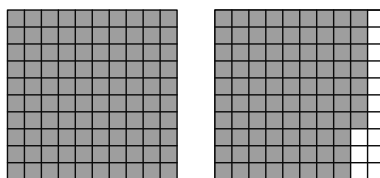
Diagram	Fraction	Decimal
	$1\frac{55}{100}$	1. ____
		
		
		



Check



The large square represents 1. Use the diagram to complete Problems 1–2.



1. What fraction does the shaded part of the diagram represent?

2. Write that fraction as a decimal.

Identifying Equivalent Decimals

ML 4.04



Modeled Review



Name: Jada

Circle the number that is equivalent.

1. Which number is equivalent to $\frac{3}{10}$?

A. 0.30

B. 3.0

C. 0.03

D. 2.10

2. Which number is equivalent to 0.9?

A. 0.09

B. 9.0

C. 0.90

D. 9.09



Guided Practice



1. Each large square represents 1. Write the equivalent fractions and decimals.

Diagram	Equivalent fractions	Equivalent decimals
	$\frac{4}{10}, \frac{40}{100}$	0.4, _____
	$1\frac{2}{10}, \frac{120}{100}$	1.2, _____
	$\frac{8}{10}, \underline{\hspace{1cm}}$	_____, _____
	_____, _____	_____, _____



Guided Practice



2. Write two equivalent decimals for each fraction.

Fraction	Equivalent tenths	Equivalent hundredths
$\frac{80}{100}$		
$\frac{3}{10}$		
$1\frac{6}{10}$		
$\frac{7}{10}$		
$1\frac{10}{100}$		
$1\frac{9}{10}$		



Check



Circle the number that is equivalent.

1. Which number is equivalent to $1\frac{7}{10}$?

- A. 1.70 B. 17.0 C. 1.07 D. 1.71

2. Which number is equivalent to 0.6?

- A. 0.06 B. 6.0 C. 6.06 D. 0.60

Comparing Decimals in Tenths and Hundredths

ML 4.05



Modeled Review

Name: Maya

Complete the comparison statements using $<$, $>$, or $=$.

1. 1.1 = 1.10

2. 3.73 < 3.83

3. 0.9 > 0.19



Guided Practice



Decompose the numbers. Then complete the comparison statement using $<$, $>$, or $=$.

1. 2.3 5.4

$$\frac{\underline{\quad 2 \quad}}{\text{whole number}} + \frac{\underline{\quad 3 \quad}}{\text{tenths}} + \frac{\underline{\quad 0 \quad}}{\text{hundredths}} \quad \frac{\underline{\quad \quad \quad}}{\text{whole number}} + \frac{\underline{\quad \quad \quad}}{\text{tenths}} + \frac{\underline{\quad \quad \quad}}{\text{hundredths}}$$

2. 4.27 4.26

$$\frac{\underline{\quad \quad \quad}}{\text{whole number}} + \frac{\underline{\quad \quad \quad}}{\text{tenths}} + \frac{\underline{\quad \quad \quad}}{\text{hundredths}} \quad \frac{\underline{\quad \quad \quad}}{\text{whole number}} + \frac{\underline{\quad \quad \quad}}{\text{tenths}} + \frac{\underline{\quad \quad \quad}}{\text{hundredths}}$$



Guided Practice



Complete the comparison statement using $<$, $>$, or $=$.

3. 2.3 _____ 2.30

4. 6.25 _____ 6.28

5. 1.6 _____ 1.32

6. 4.20 _____ 4.2

7. 3.31 _____ 3.6

8. 5.29 _____ 5.23



Check



Complete the comparison statement using $<$, $>$, or $=$.

1. 6.38 _____ 6.31

2. 1.4 _____ 1.72

3. 3.3 _____ 3.30

Comparing and Ordering Decimals

ML 4.06



Modeled Review

Name: Jack

Order the decimals from *least to greatest*.

1. 5.01, 5.1, 0.51

0.51 , 5.01 , 5.1

0.51 has 0 ones, so it is the least.
5.01 has 0 tenths and 5.1 has 1 tenth,
so 5.1 is the greatest.

2. 1.23, 1.32, 1.3

1.23 , 1.3 , 1.32



Guided Practice



Order the decimals from *least to greatest*.

1. 2.4 0.24 2.04

0.24 , _____ , _____

2. 3.24 3.42 3.4

_____ , _____ , 3.42

3. 1.12 1.2 1.02 1.21

1.02 , 1.12 , _____ , _____

4. 0.52 5.02 5.25 0.05

_____ , _____ , _____ , _____



Guided Practice



Order the decimals from *least to greatest*.

5. 1.03 0.31 3.10

_____, _____, _____

6. 4.52 2.45 5.42

_____, _____, _____

7. 2.32 2.23 2.2 2.25

_____, _____, _____, _____

8. 0.61 6.01 0.16 1.06

_____, _____, _____, _____



Check



Order the decimals from *least to greatest*.

1. 0.84 8.04 0.48 4.8

_____, _____, _____, _____

2. 0.17 1.07 1.71 0.71

_____, _____, _____, _____

Comparing Decimals and Fractions

ML 4.07



Modeled Review

Name: Tristan

Complete the comparison statement using $<$, $>$, or $=$.

1. $\frac{1}{10}$ _____ 1.10

$$1.10 = \frac{11}{10}$$

2. 0.5 _____ $\frac{50}{100}$

3. $\frac{45}{100}$ _____ 0.2

$$0.2 = \frac{2}{10} = \frac{20}{100}$$



Guided Practice



Complete the comparison statement using $<$, $>$, or $=$.

1. 0.3 _____ $\frac{4}{10}$

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

2. $\frac{43}{100}$ _____ 0.65

$$0.65 = \frac{65}{100}$$

3. $\frac{56}{100}$ _____ 0.4

4. 0.60 _____ $\frac{6}{10}$

5. $\frac{2}{10}$ _____ 0.22



Guided Practice



Complete the comparison statement using $<$, $>$, or $=$.

6. 0.5 _____ $\frac{15}{100}$

7. $\frac{72}{100}$ _____ 0.75

8. 0.3 _____ 0.40

9. 0.28 _____ $\frac{28}{100}$

10. $\frac{4}{10}$ _____ 0.32



Check



Complete the comparison statement using $<$, $>$, or $=$.

1. 0.1 _____ $\frac{1}{10}$

2. $\frac{12}{100}$ _____ 0.15

3. $\frac{6}{10}$ _____ 0.72

4. $\frac{54}{100}$ _____ 0.54

Representing Numbers Greater Than 1,000

ML 4.08

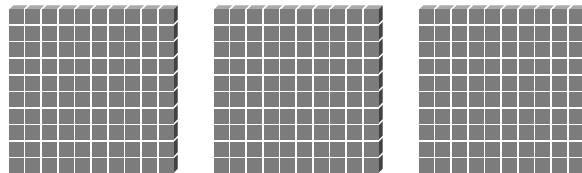


Modeled Review

Name: Priya

Determine the number of hundreds, tens, and ones that are equal to 300. Use base-ten blocks if it is helpful.

1. 300 is 3 hundreds.



2. 300 is 30 tens.

3. 300 is 300 ones.



Guided Practice



Determine the number of tens and ones that are equal to each number. Use base-ten blocks if it is helpful.

1. 60 is _____ tens.

2. 80 is _____ tens.

60 is _____ ones.

80 is _____ ones.

3. 100 is _____ tens.

4. 200 is _____ tens.

100 is _____ ones.

200 is _____ ones.



Guided Practice



Determine the number of thousands, hundreds, or tens that are equal to each number. Use base-ten blocks if it is helpful.

5. 500 is ____ hundreds.

500 is ____ tens.

6. 4,000 is ____ thousands.

4,000 is ____ hundreds.

7. 17,000 is ____ thousands.

17,000 is ____ hundreds.

8. 25,000 is ____ thousands.

25,000 is ____ hundreds.

9. 50,000 is ____ thousands.

50,000 is ____ hundreds.

10. 120,000 is ____ thousands.

120,000 is ____ hundreds.



Check



Determine the number of thousands, hundreds, or tens that are equal to each number. Use base-ten blocks if it is helpful.

1. 3,000 is _____ thousands.

2. 3,000 is _____ hundreds.

3. 12,000 is _____ thousands.

4. 12,000 is _____ hundreds.

Writing Numbers in Standard and Expanded Form

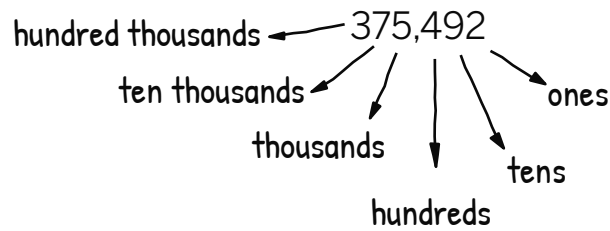
ML 4.09



Modeled Review

Name: Eva

Write the number in expanded form.

expanded form: $300,000 + 70,000 + 5,000 + 400 + 90 + 2$ 

Guided Practice



Complete the expanded form of each number.

1. $13,456 = 10,000 + 3,000 + 400 + 50 + \underline{\hspace{2cm}}$

2. $34,281 = 30,000 + 4,000 + 200 + \underline{\hspace{2cm}} + \underline{\hspace{2cm}}$

3. $71,632 = 70,000 + 1,000 + \underline{\hspace{2cm}} + \underline{\hspace{2cm}} + \underline{\hspace{2cm}}$

4. $52,325 = 50,000 + \underline{\hspace{2cm}} + \underline{\hspace{2cm}} + \underline{\hspace{2cm}} + \underline{\hspace{2cm}}$

5. $96,453 = \underline{\hspace{2cm}} + \underline{\hspace{2cm}} + \underline{\hspace{2cm}} + \underline{\hspace{2cm}} + \underline{\hspace{2cm}}$



Guided Practice



Write each number in expanded form.

6. 234

expanded form: _____

7. 3,502

expanded form: _____

8. 17,842

expanded form: _____

9. 362,574

expanded form: _____



Check



Write each number in expanded form.

1. 36,725

expanded form: _____

2. 821,473

expanded form: _____

Comparing Numbers in Standard and Expanded Form

ML 4.10



Modeled Review

Name: Avery

For Problems 1 and 2, determine the value of the digit in each statement.

1. What is the value of the 4 in 57,042? 40

2. What is the value of 4 in 39,412? 400

$$40 \times 10 = 400$$

3. Complete the sentence to show how the values of the digits are related.

400 is ten times the value of 40.



Guided Practice



For Problems 1 and 2, determine the value of the digit in each statement.

1. What is the value of 3 in 62,134? 30

2. What is the value of 3 in 29,351? _____

3. Complete the sentence to show how the value of the digits are related.

$30 \times 10 = \underline{\hspace{2cm}}$, so _____ is 10 times the value of _____.

For Problems 4 and 5, determine the value of the digit in each statement.

4. What is the value of 5 in 84,537? _____

5. What is the value of 5 in 45,192? _____

6. Complete the sentence to show how the value of the digits are related.

_____ $\times 10 = \underline{\hspace{2cm}}$, so _____ is 10 times the value of _____.



Guided Practice



Choose numbers from the number bank to make each statement true.

351,628

27,463

48,217

184,751

- The 2 in 48,217 is ten times the value of the 2 in _____.
- The 7 in _____ is ten times the value of the 7 in _____.

Choose numbers from the number bank to make each statement true.

546,198

30,220

59,741

763,071

- The 5 in _____ is ten times the value of the 5 in _____.
- The 3 in _____ is ten times the value of the 3 in _____.



Check



Choose numbers from the number bank to make each statement true.

294,136

72,452

623,514

31,392

- The 5 in _____ is ten times the value of the 5 in _____.
- The 1 in _____ is ten times the value of the 1 in _____.

Identifying Numbers Using Relationships Between Digits

ML 4.11



Modeled Review

Name: Avery

The 6 in 27,364 has 10 times the value of the 6 in which number?

- A. 46,751
- B. 65,280
- C. 13,426
- D. 92,603

The 6 in 27,364 is in the tens place, so it has a value of 60.

$$60 \div 10 = 6$$



Guided Practice



The value of the 5 in 34,567 is 500.

1. What is that value times 10? 5,000
2. Circle the number with that value. 5,784 56,783

The value of the 2 in 627,438 is 20,000.

3. What is that value times 10? _____
4. Circle the number with that value. 24,631 265,931



Guided Practice



For Problems 5 and 6, use the number 146,981.

5. What is the value of the 8? _____
6. What is that value times 10? _____
7. Circle the number with that value. 9,584 97,861
8. The 2 in 821,347 has 10 times the value of the 2 in which number?
 - A. 93,124
 - B. 475,269
 - C. 362,581
 - D. 84,312
9. The 7 in 748,931 has 10 times the value of the 7 in which number?
 - A. 379,814
 - B. 857,624
 - C. 216,379
 - D. 435,718



Check



1. The 4 in 92,458 has 10 times the value of the 4 in which number?
 - A. 14,367
 - B. 54,892
 - C. 21,475
 - D. 89,043
2. The 6 in 736,249 has 10 times the value of the 6 in which number?
 - A. 16,784
 - B. 462,591
 - C. 53,672
 - D. 92,467

Comparing Multi-Digit Numbers

ML 4.12



Modeled Review

Name: AveryComplete the comparison using $<$ or $>$.

1. $63,951$ $<$ $65,003$

2. $91,568$ $<$ $123,068$

63,951 and 65,003 have the same digit in the ten thousands place.

91,568 has 5 digits. 123,068 has 6 digits.



Guided Practice

Complete the comparison using $<$ or $>$.

1. 78 _____ 85

2. 592 _____ 564

3. $4,762$ _____ $4,958$

4. $23,456$ _____ $23,789$

5. $12,345$ _____ $9,876$

6. $8,910$ _____ $45,678$



Guided Practice



7. Complete the comparison using $<$ or $>$.

Number	$<$ or $>$	Number
45,672		45,789
12,349		12,098
8,912		8,921
648,709		589,362
164,321		64,320
27,345		127,344
91,234		91,235
115,678		15,677



Check



Complete the comparison using $<$ or $>$.

1. 47,812 _____ 52,009

2. 459,782 _____ 459,781

3. 102,345 _____ 98,765

4. 12,345 _____ 112,345

Identifying the Least and Greatest Multi-Digit Numbers

ML 4.13



Modeled Review

Name: Jada

Determine the *least* and *greatest* numbers from the number bank.

25,649

127,041

26,443

12,741

least: 12,741

greatest: 127,041

12,741 has a 1 in the ten thousands and the other numbers with 5 digits have 2, so it is the least.

127,041 is the only number with a digit in the hundred thousands place, so it is the greatest.



Guided Practice



For Problems 1–4, determine the *least* and *greatest* numbers from the number bank.

1. 127 435 18 515

least: _____

greatest: _____

2. 6,548 3,295 6,212 4,545

least: _____

greatest: _____

3. 45,214 51,738 50,765 52,365

least: _____

greatest: _____

4. 76,126 8,955 76,210 8,971

least: _____

greatest: _____



Guided Practice



For Problems 5–8, determine the *least* and *greatest* numbers from the number bank.

5. 174,622 38,031 38,147 142,548

least: _____ greatest: _____

6. 7,648 8,288 7,654 8,321

least: _____ greatest: _____

7. 825,911 865,765 832,650 845,754

least: _____ greatest: _____

8. 1,707 1,275 1,843 1,050

least: _____ greatest: _____



Check



For Problems 1–2, determine the *least* and *greatest* numbers from the number bank.

1. 52,034 64,581 128,657 102,165

least: _____ greatest: _____

2. 28,973 10,264 27,120 10,785

least: _____ greatest: _____

Rounding Numbers

ML 4.14



Modeled Review

Name: Diego

1. Round $\overset{\curvearrowright}{1}74,528$ to the nearest 100,000. 200,000

174,528 is between 100,000 and 200,000, and it is closer to 200,000 because there is a 7 in the ten thousands place.

2. Round $1\overset{\curvearrowright}{7}4,528$ to the nearest 10,000. 170,000

174,528 is between 170,000 and 180,000, and it is closer to 170,000 because there is a 4 in the thousands place.



Guided Practice



Round each number to the given place value.

1. Round $\overset{\curvearrowright}{2}63,745$ to the nearest 10,000. _____

2. Round $\overset{\curvearrowright}{2}63,745$ to the nearest 100,000. _____

3. Round $7\overset{\curvearrowright}{2}8,304$ to the nearest 1,000. _____

4. Round $7\overset{\curvearrowright}{2}8,304$ to the nearest 10,000. _____

5. Round $\overset{\curvearrowright}{7}28,304$ to the nearest 100,000. _____



Guided Practice



Round each number to the given place value.

6. Round 186,925 to the nearest 100,000. _____

7. Round 186,925 to the nearest 10,000. _____

8. Round 412,683 to the nearest 1,000. _____

9. Round 412,683 to the nearest 10,000. _____

10. Round 653,220 to the nearest 100,000. _____

11. Round 653,220 to the nearest 10,000. _____



Check



Round each number to the given place value.

1. Round 891,265 to the nearest 1,000. _____

2. Round 429,328 to the nearest 10,000. _____

3. Round 162,441 to the nearest 100,000. _____

Rounding the Same Number to Different Places

ML 4.15



Modeled Review

Name: Clare

Round the number to the given place values.

	Rounded to the nearest 1,000	Rounded to the nearest 10,000	Rounded to the nearest 100,000
365,238	365,000	370,000	400,000

365,200 is closer to 365,000 than to 366,000.

365,200 is closer to 370,000 than to 360,000.

360,000 is closer to 400,000 than to 300,000.



Guided Practice



Round each number to the given place values.

- Round 178,233 to the nearest 1,000. _____
- Round 178,233 to the nearest 10,000. _____
- Round 178,233 to the nearest 100,000. _____
- Round 42,812 to the nearest 1,000. _____
- Round 42,812 to the nearest 10,000. _____
- Round 42,812 to the nearest 100,000. _____



Guided Practice



7. Round each number to the given place values.

	Rounded to the nearest 1,000	Rounded to the nearest 10,000	Rounded to the nearest 100,000
112,682			
68,109			
467,292			
92,376			
847,235			
48,947			



Check



Round each number to the given place values.

	Rounded to the nearest 1,000	Rounded to the nearest 10,000	Rounded to the nearest 100,000
28,803			
538,510			
66,258			

Estimating to Determine Reasonable Sums

ML 4.16



Modeled Review

Name: Clare

Use the table to answer the questions. Show your thinking.

Nest location	Number of hatchlings
Island A	13,286
Island B	28,653

Estimate the total number of hatchlings at Island A and Island B.

$$10,000 + 30,000 = 40,000$$

answer: 40,000 hatchlings



Guided Practice



Estimate the sum. Show your thinking.

1. $7,145 + 3,923 = 7,000 + 4,000 = \underline{\hspace{2cm}}$

2. $2,764 + 5,212 = \underline{\hspace{2cm}} + 5,000 = \underline{\hspace{2cm}}$

3. $4,302 + 1,417 = \underline{\hspace{2cm}} + \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

4. $6,853 + 8,762 = \underline{\hspace{2cm}} + \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

5. $1,440 + 5,632 = \underline{\hspace{2cm}} + \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

Adding Using the Standard Algorithm

ML 4.17



Modeled Review

Name: Santiago

Determine the sum using the standard algorithm.

$$369 + 457$$

$$\begin{array}{r}
 1 \ 1 \\
 3 \ 6 \ 9 \\
 + 4 \ 5 \ 7 \\
 \hline
 8 \ 2 \ 6
 \end{array}$$

$9 + 7 = 16$. I put the 6 in the ones column and the 1 at the top of the tens column.



Guided Practice



Determine each sum using the standard algorithm.

1. $546 + 315$

$$\begin{array}{r}
 1 \\
 5 \ 4 \ 6 \\
 + 3 \ 1 \ 5 \\
 \hline
 \boxed{} \ 6 \ 1
 \end{array}$$

2. $253 + 174$

$$\begin{array}{r}
 \boxed{} \\
 2 \ 5 \ 3 \\
 + 1 \ 7 \ 4 \\
 \hline
 \boxed{} \ \boxed{} \ 7
 \end{array}$$

3. $817 + 165$

$$\begin{array}{r}
 \boxed{} \\
 8 \ 1 \ 7 \\
 + 1 \ 6 \ 5 \\
 \hline
 \boxed{} \ \boxed{} \ \boxed{}
 \end{array}$$



Guided Practice



Determine each sum using the standard algorithm.

4. $12,412 + 8,394$

+						

5. $1,283 + 652$

6. $508 + 264$

7. $23,765 + 4,527$



Check



Determine the sum using the standard algorithm.

$34,375 + 2,816$

Subtracting Using the Standard Algorithm

ML 4.18



Modeled Review

Name: Shawn

Determine the difference using the standard algorithm.

$$924 - 609$$

$$\begin{array}{r} & & 1 & 14 \\ & 9 & \cancel{2} & \cancel{4} \\ - & 6 & 0 & 9 \\ \hline & 3 & 1 & 5 \end{array}$$



Guided Practice



Determine the difference using the standard algorithm.

1. $548 - 185$

$$\begin{array}{r} & & 4 & 14 \\ & \cancel{5} & \cancel{4} & 8 \\ - & 1 & 8 & 5 \\ \hline & \boxed{} & 6 & 3 \end{array}$$

2. $253 - 124$

$$\begin{array}{r} & & 4 & 13 \\ & 2 & \cancel{5} & \cancel{3} \\ - & 1 & 2 & 4 \\ \hline & \boxed{} & \boxed{} & 9 \end{array}$$

3. $817 - 165$

$$\begin{array}{r} & \boxed{} & \boxed{} & \\ & 8 & 1 & 7 \\ - & 1 & 6 & 5 \\ \hline & \boxed{} & \boxed{} & \boxed{} \end{array}$$

Subtracting With Zeros Using the Standard Algorithm

ML 4.19



Modeled Review



Name: Han

Determine the difference using the standard algorithm.

$$1,509 - 287$$

		4	10	
	1,	5	0	9
-		2	8	7
	1,	2	2	2

There are 0 tens. I decomposed 1 hundred to get 10 tens. There are 4 hundreds left.



Guided Practice



Determine the difference using the standard algorithm.

1. $1,046 - 315$

		0	10	
	1 ,	0	4	6
-		3	1	5
				1

2. $404 - 174$

		3	10	
	4 ,	0	4	
-		1	7	4
				0

3. $1,097 - 165$

	1,	0	9	7
-		1	6	5

Solving Story Problems With Addition and Subtraction

ML 4.20



Modeled Review



Name: Tristan

In 2017, the estimated population of City 1 was 585,351, and the estimated population of City 2 was 255,214.

1. What was the total population of the two cities in 2017?

$$\begin{array}{r}
 11 \\
 585,351 \\
 + 255,214 \\
 \hline
 840,565
 \end{array}$$

answer: 840,565 people

2. How many more people lived in City 1 than City 2 in 2017?

$$\begin{array}{r}
 411 \\
 585,351 \\
 - 255,214 \\
 \hline
 330,137
 \end{array}$$

answer: 330,137 people



Guided Practice



A national park had 43,834 visitors during a peak season. During a later off-peak season, the number of visitors decreased to 26,826.

1. What was the total number of visitors to the national park across both seasons? Show or explain your thinking.

$$\begin{array}{r}
 43,834 \\
 + 26,826 \\
 \hline
 \end{array}$$

answer: _____

2. Determine the difference between the number of visitors from the peak season to off-peak season. Show or explain your thinking.

$$\begin{array}{r}
 43,834 \\
 - 26,826 \\
 \hline
 \end{array}$$

answer: _____



Guided Practice



In June, Han sold 2,467 books at his bookstore, and in May he sold 4,383 books.

3. What was the total number of books sold in May and June? Show or explain your thinking.
4. How many more books did Han sell in May than June? Show or explain your thinking.

answer: _____

answer: _____



Check



An airplane flew 8,782 miles on its first trip and 1,855 miles on its second trip.

1. What is the total number of miles the airplane flew on these two trips? Show or explain your thinking.
2. How many more miles did the airplane fly on the first trip than the second trip? Show or explain your thinking.

answer: _____

answer: _____

Solving Multi-Step Story Problems

ML 4.21



Modeled Review



Name: Han

Solve the problem. Show your work.

Last year, sea turtle eggs were recorded at 3 beaches. How many sea turtle eggs were recorded at Beach B?

	Number of sea turtle eggs
Beach A	72,861
Beach B	38,632
Beach C	37,432
Total:	148,925

$$\begin{array}{r}
 11 \\
 72,861 \\
 + 37,432 \\
 \hline
 110,293
 \end{array}$$

$$\begin{array}{r}
 812 \\
 148,925 \\
 - 110,293 \\
 \hline
 38,632
 \end{array}$$



Guided Practice



1. Solve the problem by completing the steps. Show your thinking.

Problem	Steps	Work										
<p>During the month of June, fish were counted.</p> <p>How many green fish were counted?</p> <table border="1"> <thead> <tr> <th></th> <th>Number of fish</th> </tr> </thead> <tbody> <tr> <td>Red</td> <td>15,105</td> </tr> <tr> <td>Blue</td> <td>18,311</td> </tr> <tr> <td>Green</td> <td></td> </tr> <tr> <td>Total</td> <td>58,456</td> </tr> </tbody> </table>		Number of fish	Red	15,105	Blue	18,311	Green		Total	58,456	<p>Step 1:</p> <p>Number of red fish + Number of blue fish</p> <hr/> <p>Total number of red and blue fish</p> <p>Step 2:</p> <p>Total number of fish – Number of red and blue fish</p> <hr/> <p>Number of green fish</p>	$ \begin{array}{r} 1 \\ 15,105 \\ + 18,311 \\ \hline 33,416 \end{array} $ $ \begin{array}{r} 58,456 \\ - 33,416 \\ \hline 25,040 \end{array} $
	Number of fish											
Red	15,105											
Blue	18,311											
Green												
Total	58,456											



Guided Practice



Solve the problem. Show your work.

2. How many herons were rescued by the wildlife center?

	Number rescued
Seagulls	6,418
Herons	
Pelicans	4,326
Total	18,659

$$+ \quad \underline{\hspace{2cm}} \quad - \quad \underline{\hspace{2cm}}$$

3. How many reptiles were rescued by the wildlife center?

	Number rescued
Reptiles	
Fish	17,281
Birds	19,462
Total	49,294



Check



Solve the problem. Show your work.

How many animals were injured in February?

	Number of injured animals
December	16,720
January	22,821
February	
Total	63,851

Unit 5

Mini-Lessons

Using Multiplicative Reasoning to Compare Sets of Objects

ML 5.02

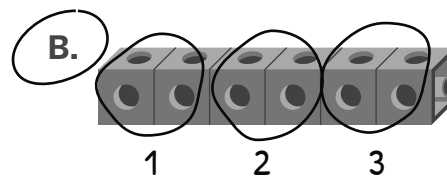
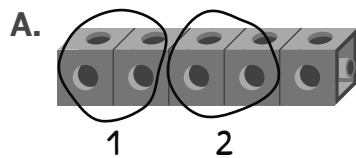
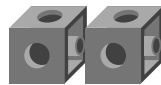


Modeled Review



Name: Shawn

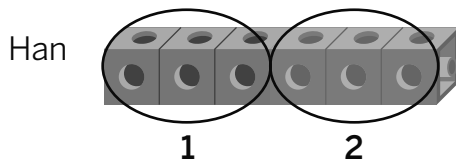
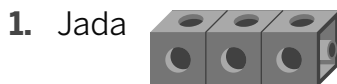
Which representation shows *three* times as many cubes as the image?



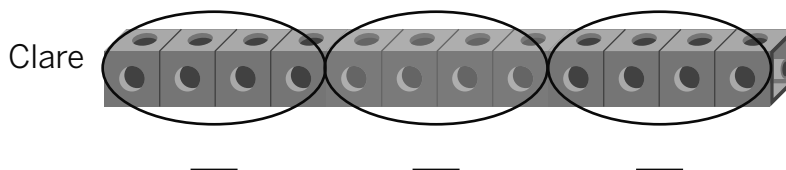
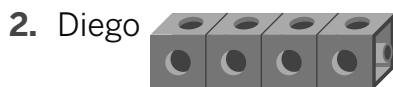
Guided Practice



Fill in the blanks to complete the comparison statements.



Han has _____ times as many cubes as Jada.



Clare has _____ times as many cubes as Diego.

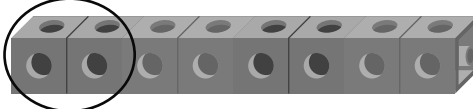


Guided Practice




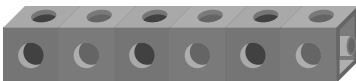
For Problems 3 and 4, fill in the blanks to complete the comparison statements.

3. Tristan 

Priya 

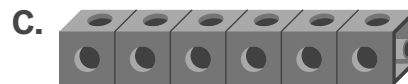
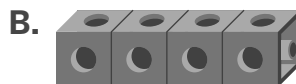
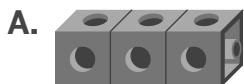
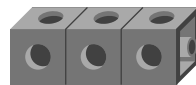
Priya has _____ times as many cubes as Tristan.

4. Eva 

Avery 

Avery has _____ times as many cubes as Eva.

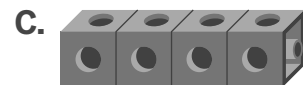
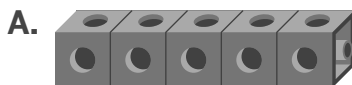
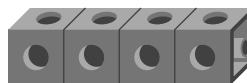
5. Which representation shows *two* times as many cubes as the image? Circle the correct answer.



Check



Which representation shows *two* times as many cubes as the image? Circle the correct answer.



Representing Multiplication Comparison Situations

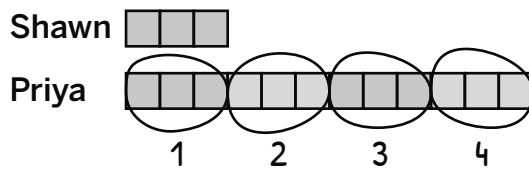
ML 5.03



Modeled Review

Name: Santiago

Use the diagram to complete the statement. Then write an equation to represent the diagram.



statement: Shawn has 3 cubes. Priya has 4 times as many cubes as Shawn.

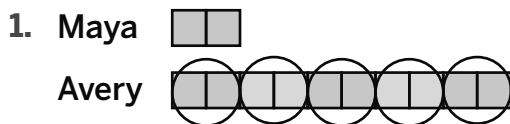
equation: $4 \times 3 = 12$



Guided Practice

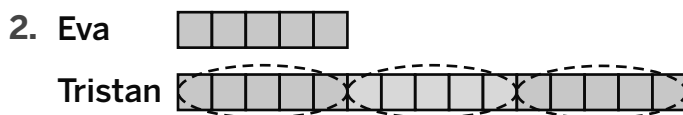


Use the diagram to complete the statement. Then write an equation to represent the diagram.



statement: Maya has ___ cubes. Avery has ___ times as many cubes as Maya.

equation: _____



statement: Eva has ___ cubes. Tristan has ___ times as many cubes as Eva.

equation: _____



Guided Practice



Use the diagram to complete the statement. Then write an equation to represent the diagram.

3. Dylan 

Kai 

statement: Dylan has ___ cubes. Kai has ___ times as many cubes as Dylan.

equation: _____

4. Han 

Clare 

statement: Han has ___ cubes. Clare has ___ times as many cubes as Han.

equation: _____



Check



Use the diagram to complete the statement. Then write an equation to represent the diagram.

Jack 

Jada 

statement: Jack has ___ cubes. Jada has ___ times as many cubes as Jack.

equation: _____

Solving Comparison Problems Using Tape Diagrams

ML 5.04



Modeled Review

Name: Clare

Represent each problem with a diagram and solve.

Priya has 4 strawberries. Maya has 6 times as many strawberries as Priya. How many strawberries does Maya have?

Priya

4

 $6 \times 4 = 24$

Maya

4	4	4	4	4	4
---	---	---	---	---	---

answer: 24 strawberries



Guided Practice



Represent each problem with a diagram and solve.

- Diego has 6 blueberries. Avery has 5 times as many blueberries as Diego. How many blueberries does Avery have?

Deigo

6

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

Avery

6	6	6	6	6
---	---	---	---	---

answer: blueberries

- Eva has 8 strawberries. Jack has 4 times as many strawberries as Eva. How many strawberries does Jack have?

Eva

--

$4 \times 8 = \underline{\hspace{2cm}}$

Jack

--	--	--	--

answer:



Guided Practice



Represent each problem with a diagram and solve.

3. Han has 2 apples. Shawn has 4 times as many apples as Han. How many apples does Shawn have?

Han

Shawn

answer: _____

4. Kai has 5 peaches. Eva has 2 times as many peaches as Kai. How many peaches does Eva have?

answer: _____

5. Santiago has 3 pears. Avery has 6 times as many pears as Santiago. How many pears does Avery have?

answer: _____



Check



Represent the problem with a diagram and solve.

Priya has 9 blackberries. Jada has 3 times as many blackberries as Priya. How many blackberries does Jada have?

answer: _____

Solving Multiplicative Comparison Problems

ML 5.05




Modeled Review

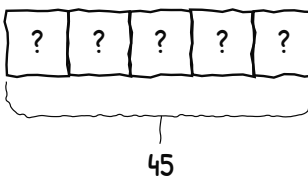
Name: Tristan

Eva has some stickers. Han has 45, which is 5 times as many stickers as Eva has. How many stickers does Eva have?

$$5 \times ? = 45$$

$$45 \div 5 = ?$$

Eva 

Han 

answer: 9 stickers



Guided Practice



Solve each problem to determine the unknown value. Show your thinking.

1. Avery has some trading cards. Jada has 24, which is 6 times as many trading cards as Avery has. How many trading cards does Avery have?

answer: _____ trading cards

2. Maya has 7 beads and Diego has 28 beads. How many times as many beads does Diego have compared to the number of beads that Maya has?

answer: _____ times as many



Guided Practice



Solve each problem to determine the unknown value. Show your thinking.

3. Dylan has some baseballs. Han has 27, which is 3 times as many baseballs as Dylan has. How many baseballs does Dylan have?

answer: _____

4. Shawn has 6 tennis balls and Clare has 42. How many times as many tennis balls does Clare have compared to the number of tennis balls that Shawn has?

answer: _____

5. Tristan scored some points in basketball. Priya scored 18, which is 6 times as many points as Tristan scored. How many points did Tristan score?

answer: _____



Check



Solve the problem to determine the unknown value. Show your thinking.

Jack scored some points in football. Santiago has 21, which is 3 times as many points as Jack has. How many points does Jack have?

answer: _____

Solving Two-Step Multiplicative Comparison Problems

ML 5.06



Modeled Review



Name: Jada

Solve the comparison story problem. Show your thinking.

This year, the school librarian bought 20 mystery books. Last year, 3 times the number of mystery books were bought. How many total mystery books were bought last year and this year?

mystery books this year: 20

20

mystery books last year: $20 \times 3 = ?$

20 20 20

20
+60
80

60

answer: 80 mystery books



Guided Practice



Solve the comparison story problem. Show your thinking.

- The school spent \$150 on new books. The total amount spent on books was 5 times as much as the cost of 1 backpack. If 7 backpacks were bought, how much was spent on backpacks?

cost of 1 backpack: $5 \times ? = 150$

cost of all backpacks: $\boxed{} \times \boxed{} = \boxed{}$

cost of backpack

cost of new books

150

$$150 \div 5 = \boxed{}$$

$$5 \times \boxed{} = 150$$

answer: _____



Guided Practice



Solve the comparison story problem. Show your thinking.

2. The total amount spent on notebooks was 6 times as much as the amount spent on a box of pencils. \$18 was spent on notebooks. The school bought 3 boxes of pencils. How much was spent on pencils?

cost of 1 box of pencils: $6 \times ? = 18$

$18 \div 6 = \square$

cost of 3 boxes of pencils:

1 box of pencils

notebooks

answer: _____

3. This year, the community center ordered 15 basketballs. Last year, they ordered 4 times the number of basketballs. How many total basketballs were ordered last year and this year?

answer: _____



Check



Solve the comparison story problem. Show your thinking.

This year, the garden club planted 25 sunflower seeds. Last year, they planted 5 times the number of sunflower seeds. How many total sunflower seeds were planted last year and this year?

answer: _____

Solving More Two-Step Multiplicative Comparison Problems

ML 5.07



Modeled Review

Name: Diego

Solve the comparison story problem. Show your thinking.

The community center spent \$63 on pool supplies. They spent 7 times as much on pool supplies than they spent on new whistles.

How much more money did the community center spend on pool supplies than on whistles?

$$\text{cost of whistles: } 7 \times ? = 63$$

$$63 - 9 = 54$$

$$63 \div 7 = 9$$

\$9 on whistles

answer: \$54



Guided Practice



Solve the comparison story problem. Show your thinking.

1. A school spent \$90 on crayons. The total amount spent on crayons was 3 times as much as the cost of 1 box of paper. If 5 boxes of paper were bought, how much was spent on boxes of paper?

$$\text{cost of 1 box of paper: } 3 \times ? = 90$$

$$\text{cost of 5 boxes: } 5 \times \underline{\quad} = \underline{\quad}$$

$$90 \div 3 = \underline{\quad}$$

answer:



Guided Practice



Solve each comparison story problem. Show your thinking.

2. The total amount spent on markers was 8 times as much as the amount spent on 1 box of pencils. \$32 was spent on markers. The school bought 5 boxes of pencils. How much was spent on pencils?

answer: _____

3. This year, the community center ordered 12 soccer balls. Last year, they ordered 3 times the number of soccer balls. How many total soccer balls were ordered last year and this year?

answer: _____



Check



Solve the comparison story problem. Show your thinking.

This year, the garden club planted 10 tomato plants. Last year, they planted 4 times the number of tomato plants. How many total tomato plants were planted last year and this year?

answer: _____

Converting Measurements From Meters to Centimeters

ML 5.08



Modeled Review

Name: Avery

An adult elephant grows to be approximately 4 meters tall. What is the height of the elephant in centimeters?

$$4 \times 100 = 400 \text{ centimeters}$$

$$1 \text{ meter} = 100 \text{ centimeters}$$

$$2 \text{ meters} = 200 \text{ centimeters}$$

$$3 \text{ meters} = 300 \text{ centimeters}$$

$$4 \text{ meters} = 400 \text{ centimeters}$$

answer: 400 centimeters



Guided Practice



Complete the conversions. Show your thinking.

1. 1 meter = 100 centimeters

3 meters = _____ centimeters

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

2. 1 meter = _____ centimeters

9 meters = _____ centimeters

3. 1 meter = _____ centimeters

12 meters = _____ centimeters



Guided Practice



4. Complete the table of conversions.

Item	Measurement in meters (m)	Measurement in centimeters (cm)
length of a guitar	1	100
length of a bed	2	
length of a car	3	
height of a tree	4	
height of a giraffe	5	
height of a dinosaur	10	
height of a telephone pole	12	
length of an airplane	50	
length of a soccer field	100	



Check



Complete the conversion. Show your thinking.

Adult gray whales are approximately 14 meters long. How long is that in centimeters?

answer: _____

Converting Measurements From Kilometers to Meters

ML 5.09



Modeled Review

Name: Maya

Diego hiked 3 kilometers through Yosemite National Park. How far is that in meters?

$$3 \times 1,000 = 3,000$$

$$1 \text{ kilometer} = 1,000 \text{ meters}$$

$$2 \text{ kilometers} = 2,000 \text{ meters}$$

$$3 \text{ kilometers} = 3,000 \text{ meters}$$

answer: 3,000 meters



Guided Practice



Complete the conversions. Show your thinking.

1. 1 kilometer = 1,000 meters

2 kilometers = _____ meters

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

2. 1 kilometer = _____ meters

6 kilometers = _____ meters

3. 1 kilometer = _____ meters

12 kilometers = _____ meters



Guided Practice



4. Complete the table of conversions.

Distance	Measurement in kilometers (km)	Measurement in meters (m)
walk around a pond	1	1,000
street in a neighborhood	2	
walk across a theme park	3	
distance of a foot race	5	
climb to the top of Mt. Everest	9	
walk across a small city	12	
width of the Grand Canyon	29	
distance in a marathon	42	
drive from Miami to Tampa	450	



Check



Complete the conversion. Show your thinking.

Tristan drove 200 kilometers from Philadelphia, Pennsylvania to Washington, DC. How far did he drive in meters?

answer: _____

Using Equivalent Measures to Compare Lengths

ML 5.10



Modeled Review

Name: Santiago

Determine which measurement is longer. Show your thinking.

1. 8 kilometers or 7,000 meters 2. 2 meters or 300 centimeters

$$1 \text{ kilometer} = 1,000 \text{ meters}$$

$$1 \text{ meter} = 100 \text{ centimeters}$$

$$8 \times 1,000 = 8,000 \text{ meters}$$

$$2 \times 100 = 200 \text{ centimeters}$$

answer: 8 kilometers

answer: 300 centimeters



Guided Practice



Complete the measurement comparison using $<$, $>$, or $=$.

1. 6 kilometers _____ 6,350 meters

2. 3 meters _____ 250 centimeters

$$1 \text{ kilometer} = 1,000 \text{ meters}$$

$$1 \text{ meter} = 100 \text{ centimeters}$$

$$6 \times 1,000 = \underline{\hspace{2cm}}$$

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

3. 12 kilometers _____ 11,500 meters

4. 7 meters _____ 725 centimeters

$$1 \text{ kilometer} = 1,000 \text{ meters}$$

$$1 \text{ meter} = 100 \text{ centimeters}$$

$$12 \times 1,000 = \underline{\hspace{2cm}}$$

$$7 \times 100 = \underline{\hspace{2cm}}$$



Guided Practice



Complete the measurement comparison using $<$, $>$, or $=$. Show your thinking.

5. 12 meters _____ 120 centimeters

6. 7 kilometers _____ 70,000 meters

7. 30 meters _____ 30,000 centimeters

8. 4 kilometers _____ 4,000 meters

9. 14 meters _____ 14,000 centimeters



Check



Determine which measurement is longer. Show your thinking.

1. 9 kilometers or 90,000 meters

2. 13 meters or 130 centimeters

answer: _____

answer: _____

Converting Measurements From Yards to Feet and Feet to Inches

ML 5.11



Modeled Review

Name: Avery

A toy car rolled 5 feet. How far did it roll in inches?

$$12 \times 5 = 60$$

$$1 \text{ foot} = 12 \text{ inches}$$

answer: 60 inches



Guided Practice



Complete the conversions. Show your thinking.

1. 1 foot = 12 inches

3 feet = _____ inches

$$3 \times 12 = \underline{\quad}$$

2. 1 foot = _____ inches

4 feet = _____ inches

3. 1 yard = 3 feet

3 yards = _____ feet

$$3 \times 3 = \underline{\quad}$$

4. 1 yard = _____ feet

6 yards = _____ feet



Guided Practice



Complete the conversions. Show your thinking.

5. A boat measures 5 feet long.
How long is that in inches?

answer: _____

6. A football was kicked 10 yards.
How far is that in feet?

answer: _____

7. A ladder measures 10 feet.
How long is that in inches?

answer: _____

8. A runner ran 25 yards in a race.
How far is that in feet?

answer: _____



Check



Complete the conversions. Show your thinking.

1. A ball rolled 4 feet. How far is that in inches?

answer: _____

2. The length of an airplane is 50 yards. How long is that in feet?

answer: _____

Applying Perimeter Formulas for Rectangles

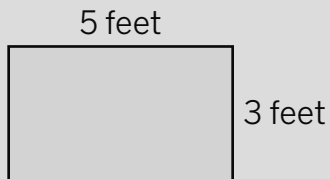
ML 5.12



Modeled Review



Determine the perimeter. Show your thinking.



Avery's work
 $5 \times 2 = 10$
 $3 \times 2 = 6$
 $10 + 6 = 16 \text{ feet}$

Jada's work
 $5 + 3 + 5 + 3$
 $10 + 6 = 16 \text{ feet}$



Guided Practice



Determine the perimeter of each rectangle using *two* different strategies. Show your thinking.



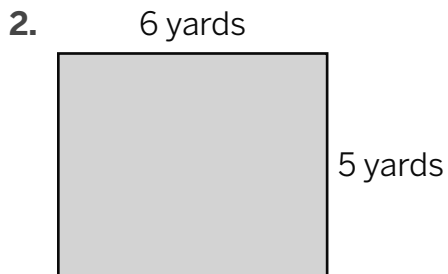
$4 + 6 + 4 + 6 = \underline{\quad}$

$2 \times 4 = 8$

$2 \times 6 = 12$

$8 + 12 = \underline{\quad}$

perimeter: $\underline{\quad}$ feet



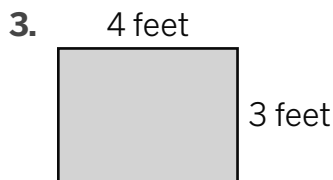
$6 + 5 + 6 + 5 = \underline{\quad}$

$2 \times \underline{\quad} = \underline{\quad}$

$2 \times \underline{\quad} = \underline{\quad}$

$12 + 10 = \underline{\quad}$

perimeter: $\underline{\hspace{2cm}}$



perimeter: $\underline{\hspace{2cm}}$



Guided Practice



Determine the missing side length using *two* strategies. Show your thinking.

4. ? yards



Perimeter = 16 yards

$$3 + ? + 3 + ? = 16$$

$$16 - 6 = 10$$

$$5 + 5 = 10$$

$$2 \times 3 = 6$$

$$2 \times \underline{\quad} = \underline{\quad}$$

$$6 + \underline{\quad} = 16$$

answer: _____

5. 4 yards

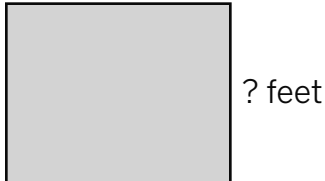


Perimeter = 12 yards

$$4 + \underline{\quad} + 4 + \underline{\quad} = 12$$

answer: _____

6. 5 feet



Perimeter = 18 feet

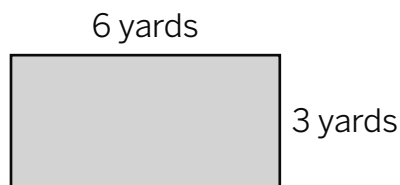
answer: _____



Check



Determine the perimeter. Show your thinking.



answer: _____

Converting Measurements From Liters to Milliliters

ML 5.13



Modeled Review

Name: Jack

Tristan has a can of red paint and a can of blue paint. There are 200 milliliters of red paint and 6 times as much blue paint. Does Tristan have more or less than 1 liter of blue paint?

blue paint = 6 times the amount of red

$$6 \times 200 \text{ milliliters}$$

$$6 \times 200 = 1,200 \text{ milliliters}$$

1,000 milliliters = 1 liter

Tristan has more than 1 liter of blue paint.



Guided Practice



Complete the conversions. Show your thinking.

1. 1 liter = 1,000 milliliters

3 liters = _____ milliliters

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

2. 1 liter = _____ milliliters

5 liters = _____ milliliters

3. 1 liter = _____ milliliters

12 liters = _____ milliliters



Guided Practice



Solve each story problem. Show your thinking.

4. Eva's cup holds 500 milliliters of water to fill her fish bowl. She uses the cup 4 times to fill the bowl. Does the fish bowl have more or less than 1 liter of water in it?

$$500 \times 4 = \underline{\hspace{2cm}} \text{ milliliters}$$

$$1 \text{ liter} = 1,000 \text{ milliliters}$$

The fish bowl has than 1 liter.

5. Clare has 150 milliliters of apple juice. She has 3 times as much orange juice. Does she have more or less than 1 liter of orange juice?

Clare has than 1 liter.

6. Diego has some lemonade and some water. He has 400 milliliters of lemonade and 2 times as much water. Does he have more or less than 1 liter of water?

Diego has than 1 liter.



Check



Solve the story problem. Show your thinking.

Dylan collects 300 milliliters of rain in the rain gauge. He collects that amount 4 times. Is that more or less than 1 liter of rain?

Dylan has than 1 liter.

Converting Measurements From Kilograms to Grams

ML 5.14



Modeled Review

Name: Kai

A hedgehog weighs 300 grams. Do 4 hedgehogs weigh more or less than 1 kilogram?

$$4 \times 300 \text{ grams}$$

$$4 \times 300 = 1,200 \text{ grams}$$

4 hedgehogs weigh more than 1 kilogram.

1,000 grams = 1 kilogram



Guided Practice



Complete the conversions. Show your thinking.

1. 1 kilogram = 1,000 grams

3 kilograms = _____ grams

$3 \times 1,000 =$ _____

2. 1 kilogram = _____ grams

6 kilograms = _____ grams

3. 1 kilogram = _____ grams

12 kilograms = _____ grams



Guided Practice



Solve each story problem. Show your thinking.

4. Eva has 2 rabbits that each weigh 800 grams. Do Eva's rabbits weigh more or less than 1 kilogram?

$$800 \times 2 = \underline{\hspace{2cm}} \text{ grams}$$

$$1 \text{ kilogram} = 1,000 \text{ grams}$$

Eva's rabbits weigh than 1 kilogram.

5. A dozen eggs weighs 600 grams. Would 3 dozen eggs weigh more or less than 1 kilogram?

3 dozen eggs weigh than 1 kilogram.

6. A baby chicken weighs 40 grams. Would 10 baby chickens weigh more or less than 1 kilogram?

10 baby chickens weigh than 1 kilogram.



Check



Solve the story problem. Show your thinking.

A gray squirrel weighs 400 grams. Would 2 squirrels weigh more or less than 1 kilogram?

2 squirrels would weigh than 1 kilogram.

Converting Measurements From Pounds to Ounces

ML 5.15



Modeled Review

Name: Jada

Jack has a 2-pound bag of oats. The muffin recipe he is making calls for 40 ounces of oats. Does Jack have enough oats?

$$2 \times 16 = 32 \text{ ounces of oats}$$

1 pound = 16 ounces

answer: No, Jack does not have enough oats.



Guided Practice



Complete the conversions. Show your thinking.

1. 1 pound = 16 ounces

3 pounds = _____ ounces

$$3 \times 16 = \underline{\quad}$$

2. 1 pound = _____ ounces

8 pounds = _____ ounces

3. 1 pound = _____ ounces

10 pounds = _____ ounces



Guided Practice



Solve each story problem. Show your thinking.

4. Priya is baking granola bars and needs 28 ounces of flour. She has a 2-pound bag of flour. Does Priya have enough flour?

$$\begin{aligned} 1 \text{ pound} &= 16 \text{ ounces} \\ 2 \times \underline{\quad} &= \underline{\quad} \text{ ounces} \end{aligned}$$

Priya _____ have enough flour.

5. A chef is preparing a pasta dish that needs 72 ounces of pasta. He has 4 pounds of pasta. Does he have enough to prepare the dish?

The chef _____ have enough pasta.

6. A baker is making breakfast casserole. The recipe calls for 42 ounces of cheese. She has a 5 pound block of cheese. Does the baker have enough cheese to make the breakfast casserole?

The baker _____ have enough cheese.



Check



Solve the story problem. Show your thinking.

Clare is preparing a meal that requires 32 ounces of rice. She has a 3 pound bag of rice. Does Clare have enough rice for her meal?

Clare _____ have enough rice.

Solving Measurement Problems in Hours, Minutes, and Seconds

ML 5.16



Modeled Review

Name: Priya

Jada spent 10 minutes walking her dog. How many seconds did she spend walking her dog?

$$1 \text{ minute} = 60 \text{ seconds}$$

$$10 \times 60 = 600 \text{ seconds}$$

answer: 600 seconds



Guided Practice



Complete the conversions. Show your thinking.

1. 1 minute = 60 seconds

3 minutes = _____ seconds

$3 \times 60 = \underline{\hspace{2cm}}$

2. 1 minute = _____ seconds

6 minutes = _____ seconds

3. 1 hour = 60 minutes

3 hours = _____ minutes

$3 \times 60 = \underline{\hspace{2cm}}$

4. 1 hour = _____ minutes

6 hours = _____ minutes



Guided Practice



Solve each story problem. Show your thinking.

5. Avery swam laps in the pool for 8 minutes. How long is that in seconds?

answer: _____

6. Clare went shopping for 4 hours. How long is that in minutes?

answer: _____

7. Shawn read a book for 40 minutes. How long is that in seconds?

answer: _____

8. A runner ran a marathon in 5 hours. How long is that in minutes?

answer: _____



Check



Solve each story problem. Show your thinking.

1. Diego went on a 20 minute bike ride. How long is that in seconds?

answer: _____

2. Han took a 7 hour ride on a bus. How long is that in minutes?

answer: _____

Applying Measurement Conversions to Compare Different Units

ML 5.17



Modeled Review

Name: Tristan

Use measurement conversion and compare using $<$, $>$, or $=$ to solve the problem. Show your thinking.

Dylan loves broccoli. Would he rather have 2 pounds or 30 ounces of broccoli?

$$1 \text{ pound} = 16 \text{ ounces}$$

$$2 \times 16 = 32 \text{ ounces}$$

$$2 \text{ pounds} > 30 \text{ ounces}$$

Dylan would rather have 2 pounds of broccoli.



Guided Practice



Use measurement conversion and compare using $<$, $>$, or $=$ to solve each problem.

- Clare does not like running. Would she rather run down a 2 kilometer trail or a 3,000 meter trail?

$$1 \text{ kilometer} = 1,000 \text{ meters}$$

$$2 \times 1,000 = \underline{\hspace{2cm}} \text{ meters}$$

$$2 \text{ kilometers} \underline{\hspace{1cm}} 3,000 \text{ meters}$$

Clare would rather run down a 2 kilometer trail.

- Han enjoys running long distances. Would he rather run on a course that is 1,000 yards long or 900 feet long?

$$1 \text{ yard} = 3 \text{ feet}$$

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

Han would rather run on a course that is 1,000 yards long.



Guided Practice



Use measurement conversion to solve each problem.

3. Maya wants to make a large batch of strawberry jam. Would she rather have 60 ounces or 4 pounds of strawberries to make the jam?

Maya would rather have _____ of strawberries.

4. Diego is collecting milk from his dairy cows to sell at the market. Would he rather collect 1,500 milliliters or 15 liters?

Diego would rather collect _____ of milk.

5. Priya does not enjoy chores. Would she rather have 110 minutes of chores or 2 hours?

Priya would rather have _____ of chores.



Check



Use measurement conversion to solve the problem.

Santiago does not enjoy hiking. Would he rather hike a trail that is 14 kilometers or 15,000 meters?

Santiago would rather hike the _____ trail.

Unit 6

Mini-Lessons

Multiplying a Two-Digit Number by a One-Digit Number

ML 6.02



Modeled Review

Name: Tristan

A theater has 8 rows of seats and 26 seats in each row. How many seats are in the theater?

$$\begin{array}{r} 26 \\ / \quad \backslash \\ 20 \quad + \quad 6 \end{array}$$

$$8 \times 20 = 160$$

$$8 \times 6 = 48$$

$$160 + 48 = 208$$

answer: 208 seats



Guided Practice



Determine the product.

1. 4×32

$$32 = 30 + 2$$

$$4 \times 30 = 120$$

$$4 \times 2 = \underline{\quad}$$

$$120 + \underline{\quad} = \underline{\quad}$$

answer:

2. 3×46

$$46 = 40 + \underline{\quad}$$

$$3 \times \underline{\quad} = \underline{\quad}$$

$$3 \times \underline{\quad} = \underline{\quad}$$

$$\underline{\quad} + \underline{\quad} = \underline{\quad}$$

answer:

3. 5×63

$$63 = \underline{\quad} + \underline{\quad}$$

$$5 \times \underline{\quad} = \underline{\quad}$$

$$5 \times \underline{\quad} = \underline{\quad}$$

$$\underline{\quad} + \underline{\quad} = \underline{\quad}$$

answer:

4. 6×54

$$54 = \underline{\quad} + \underline{\quad}$$

$$6 \times \underline{\quad} = \underline{\quad}$$

$$6 \times \underline{\quad} = \underline{\quad}$$

$$\underline{\quad} + \underline{\quad} = \underline{\quad}$$

answer:



Guided Practice



Determine the product in each story problem. Show your thinking.

5. A concert hall has 5 sections with 65 seats in each section. How many seats are in the concert hall?

$$5 \times 65$$

$$65 = \underline{\quad} + \underline{\quad}$$

$$5 \times \underline{\quad} \underline{\quad} \underline{\quad}$$

$$5 \times \underline{\quad} \underline{\quad} \underline{\quad}$$

answer: _____

6. A lunchroom has 4 tables with 28 seats at each table. How many seats are in the lunchroom?

$$4 \times 28$$

$$28 = \underline{\quad} \underline{\quad} \underline{\quad}$$

$$4 \times \underline{\quad} \underline{\quad} \underline{\quad}$$

$$4 \times \underline{\quad} \underline{\quad} \underline{\quad}$$

answer: _____

7. A stadium has 6 sections with 42 seats in each section. How many seats are in the stadium?

answer: _____

8. An airplane has 3 seats in each row with 34 rows. How many seats are on the airplane?

answer: _____



Check



Determine the product in the story problem. Show your thinking.

A movie theater has 3 sections with 54 seats in each section. How many seats are in the movie theater?

answer: _____

Multiplying Three-Digit Numbers by One-Digit Numbers

ML 6.03

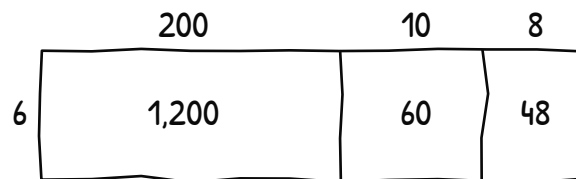


Modeled Review

Name: Santiago

Determine the value of the expression using an area diagram. Show your thinking.

$$218 \times 6 = \underline{1,308}$$



$$1,200 + 60 + 48 = 1,308$$



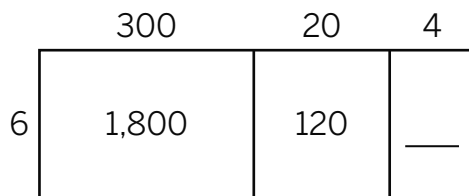
Guided Practice



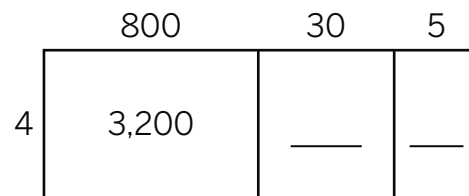
Determine the product using an area diagram. Show your thinking.

1. $324 \times 6 = \underline{\hspace{2cm}}$

2. $835 \times 4 = \underline{\hspace{2cm}}$



$$1,800 + 120 + \underline{\hspace{1cm}} = \underline{\hspace{2cm}}$$



$$3,200 + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} = \underline{\hspace{2cm}}$$

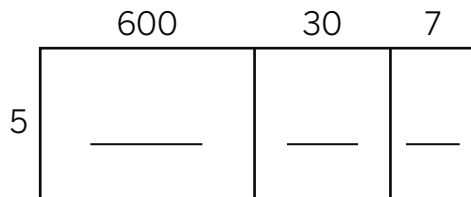


Guided Practice



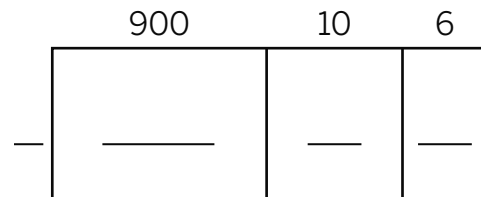
Determine the value of each expression using an area diagram. Show your thinking.

3. $637 \times 5 = \underline{\hspace{2cm}}$

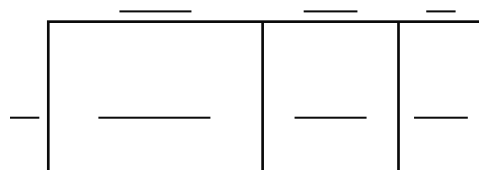


$\underline{\hspace{2cm}} + \underline{\hspace{2cm}} + \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

4. $4 \times 916 = \underline{\hspace{2cm}}$



5. $342 \times 8 = \underline{\hspace{2cm}}$



6. $3 \times 446 = \underline{\hspace{2cm}}$



Check



Determine the value of the expression by drawing an area diagram. Show your thinking.

$736 \times 4 = \underline{\hspace{2cm}}$

Estimating and Calculating Products

ML 6.04



Modeled Review



Name: Jack

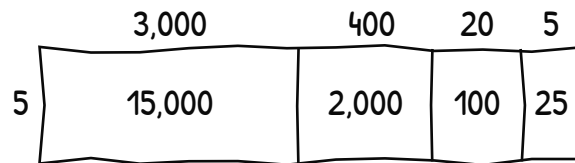
1. What is an estimate for $5 \times 3,425$?

answer: 15,000

2. Calculate the product of $5 \times 3,425$? Show your thinking.

$$15,000 + 2,000 + 100 + 25 = 17,125$$

answer: 17,125



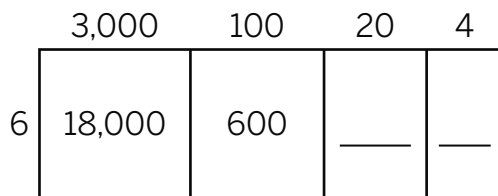
Guided Practice



Estimate each product and determine the answer. Show your thinking.

1. $3,124 \times 6$

estimate: $6 \times$ _____ $=$ _____

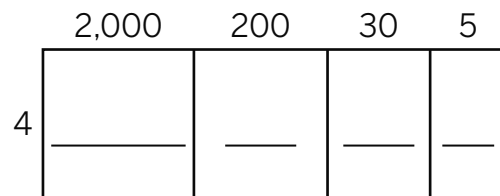


$$18,000 + 600 + \underline{\quad} + \underline{\quad} = \underline{\quad}$$

answer: _____

2. $4 \times 2,235$

estimate: $4 \times$ _____ $=$ _____



$$\underline{\quad} + \underline{\quad} + \underline{\quad} + \underline{\quad} = \underline{\quad}$$

answer: _____



Guided Practice



Estimate each product and determine the answer. Show your thinking.

3. $6,437 \times 5$

estimate: $5 \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

	6,000	400	30	7

$\underline{\hspace{2cm}} + \underline{\hspace{2cm}} + \underline{\hspace{2cm}} + \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

answer: $\underline{\hspace{2cm}}$

4. $5 \times 2,916$

estimate: $\underline{\hspace{2cm}} \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

	2,000	900	10	6

answer: $\underline{\hspace{2cm}}$

5. $3,142 \times 8$

estimate: $\underline{\hspace{2cm}} \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

answer: $\underline{\hspace{2cm}}$

6. $3 \times 4,546$

estimate: $\underline{\hspace{2cm}} \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

answer: $\underline{\hspace{2cm}}$



Check



Estimate the product and determine the answer of $4 \times 7,136$. Show your thinking.

estimate: $\underline{\hspace{2cm}} \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

answer: $\underline{\hspace{2cm}}$

Multiplying Using Partial Products

ML 6.05



Modeled Review

Name: Santiago

Calculate the product.

$$4,821 \times 5 = \underline{24,105}$$

4,821	
× 5	
5	5 × 1
100	5 × 20
4,000	5 × 800
+ 20,000	5 × 4,000
24,105	



Guided Practice



Calculate the product. Show your thinking.

1. $362 \times 4 = \underline{\hspace{2cm}}$

2. $4,295 \times 3 = \underline{\hspace{2cm}}$

362	
× 4	
8	
240	
+ 1,200	
<div style="display: flex; justify-content: space-between; width: 100px;"> </div>	

4,295	
× 3	
15	
270	
600	
+ 	
<div style="display: flex; justify-content: space-between; width: 100px;"> </div>	



Guided Practice



Calculate the product. Show your thinking.

3. $1,435 \times 6 =$ _____

$$\begin{array}{r}
 1,435 \\
 \times \quad 6 \\
 \hline
 30 \\
 180 \\
 \hline
 \end{array}$$

4. $7,539 \times 8 =$ _____

$$\begin{array}{r}
 7,539 \\
 \times \quad 8 \\
 \hline
 72 \\
 \hline
 \end{array}$$

5. $8,413 \times 5 =$ _____

$$\begin{array}{r}
 8,413 \\
 \times \quad 5 \\
 \hline
 \end{array}$$

6. $8,564 \times 7 =$ _____



Check



Calculate the product. Show your thinking.

$5,678 \times 4 =$ _____

Representing Multiplication of 2 Two-Digit Numbers

ML 6.06

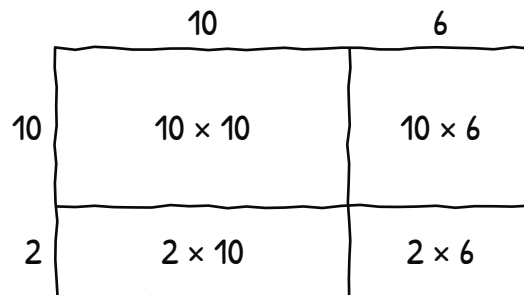


Modeled Review



Name: Dylan

Jada has a garden that is 12 feet by 16 feet. Draw and label an area diagram of Jada's garden.



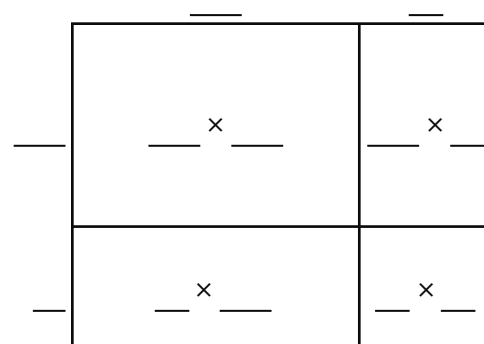
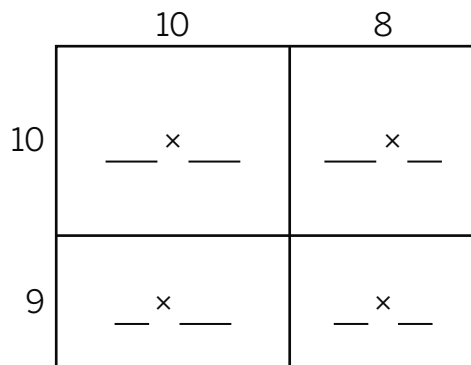
Guided Practice



Complete the labeling of each area diagram.

1. Diego has a rectangular patio that is 18 feet by 19 feet.

2. Kai has a rectangular sandbox that is 13 feet by 27 feet.

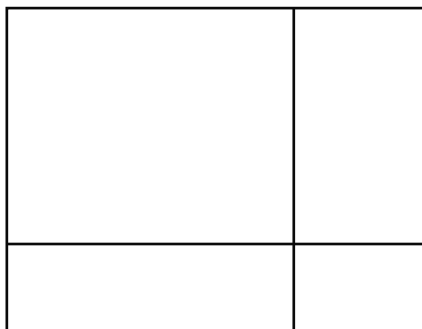




Guided Practice



3. Tristan has a vegetable patch that is 12 feet by 15 feet. Label an area diagram of Tristan's vegetable patch.



4. Avery has a rectangular play area that is 24 feet by 19 feet. Draw and label an area diagram of Avery's play area.



Check



Clare has a flower garden that is 15 feet by 23 feet. Draw and label an area diagram of Clare's flower garden.

Multiplying 2 Two-Digit Numbers Using Area Diagrams

ML 6.07



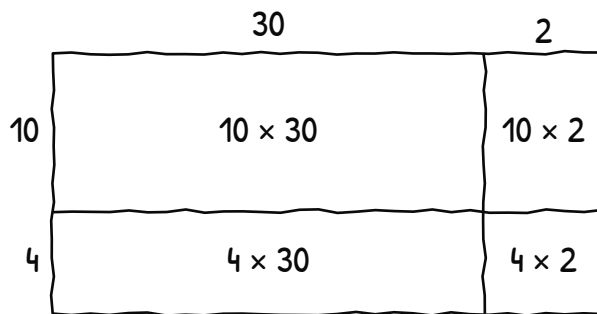
Modeled Review



Name: Dylan

Calculate the product.

$32 \times 14 = \underline{448}$



$$\begin{array}{r}
 300 \\
 20 \\
 120 \\
 + \quad 8 \\
 \hline
 448
 \end{array}$$



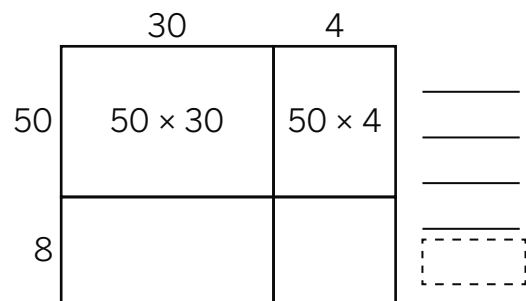
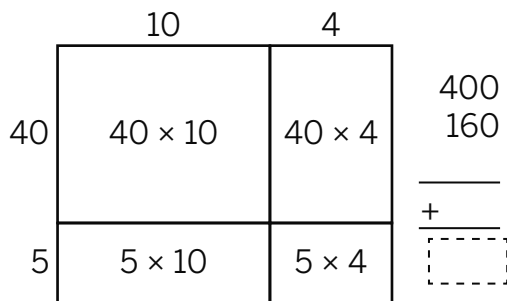
Guided Practice



Calculate the product. Show your thinking.

1. $45 \times 14 = \underline{\hspace{2cm}}$

2. $58 \times 34 = \underline{\hspace{2cm}}$





Guided Practice



Calculate the product. Show your thinking.

3. $67 \times 16 =$ _____

	10	6	
60			_____
7			_____

4. $72 \times 31 =$ _____

5. $39 \times 53 =$ _____

6. $44 \times 26 =$ _____



Check



Calculate the product. Show your thinking.

$45 \times 23 =$ _____

Multiplying 2 Two-Digit Numbers Using Partial Products

ML 6.08



Modeled Review



Name: Priya

Determine the product.

$$63 \times 47 = \underline{2,961}$$

	40	7	
60	2,400	420	
3	120	21	

$$\begin{array}{r}
 2,400 \\
 420 \\
 120 \\
 + 21 \\
 \hline
 2,961
 \end{array}$$

Name: Tristan

Determine the product.

$$63 \times 47 = \underline{2,961}$$

$\begin{array}{r} 63 \\ \times 47 \\ \hline 21 \\ 420 \\ 120 \\ + 2,400 \\ \hline 2,961 \end{array}$	7×3 7×60 40×3 40×60
--	--



Guided Practice



Determine the product. Show your thinking.

1. $52 \times 41 =$ _____

$\begin{array}{r} 52 \\ \times 41 \\ \hline 2 \\ 50 \\ 80 \\ + 2,000 \\ \hline \end{array}$	1×2 1×50 _____ \times _____ _____ \times _____
---	---

2. $64 \times 38 =$ _____

$\begin{array}{r} 64 \\ \times 38 \\ \hline 32 \\ 480 \\ 120 \\ + 1,800 \\ \hline \end{array}$	_____ \times _____ _____ \times _____ _____ \times _____ _____ \times _____
--	--



Guided Practice



Determine the product. Show your thinking.

3. $78 \times 25 =$ _____

$$\begin{array}{r}
 78 \\
 \times 25 \\
 \hline
 40 \quad 5 \times 8 \\
 350 \quad 5 \times 70 \\
 160 \quad 20 \times 8 \\
 + \quad \quad \quad \quad \times \quad \quad \\
 \hline
 \boxed{}
 \end{array}$$

4. $93 \times 42 =$ _____

$$\begin{array}{r}
 93 \\
 \times 42 \\
 \hline
 6 \quad 2 \times 3 \\
 180 \quad 2 \times 90 \\
 \quad \quad \quad \quad \times \quad \quad \\
 + \quad \quad \quad \quad \times \quad \quad \\
 \hline
 \boxed{}
 \end{array}$$

5. $84 \times 57 =$ _____

$$\begin{array}{r}
 84 \\
 \times 57 \\
 \hline
 28 \quad 7 \times 4 \\
 \quad \quad \quad \times \quad \quad \\
 \quad \quad \quad \times \quad \quad \\
 + \quad \quad \quad \times \quad \quad \\
 \hline
 \boxed{}
 \end{array}$$

6. $45 \times 38 =$ _____



Check



Determine the product. Show your thinking.

$52 \times 49 =$ _____

Applying Multiplication Strategies

ML 6.09



Modeled Review

Name: Avery

Calculate the product.

$$534 \times 8 = \underline{4,272}$$

	500	30	4
8	4,000	240	32

$$4,000 + 240 + 32 = 4,272$$

5 3 4	
× 8	

3 2	8×4
2 4 0	8×30
+ 4,0 0 0	8×500

4,2 7 2	



Guided Practice



Calculate the product. Show your thinking.

1. $93 \times 4 =$ _____

2. $627 \times 9 =$ _____



Guided Practice



Calculate the product. Show your thinking.

3. $2,543 \times 8 =$ _____

4. $63 \times 27 =$ _____

5. $89 \times 34 =$ _____

6. $478 \times 3 =$ _____



Check



Calculate the product. Show your thinking.

$243 \times 6 =$ _____

Solving Division Problems With Three-Digit Dividends and One-Digit Divisors

ML 6.10



Modeled Review

Name: Clare

A store packaged 126 apples into 6 bags with the same amount in each bag. How many apples are in each bag?

$$126 \div 6 = a$$

$$6 \times a = 126$$

$$6 \times \textcircled{20} = 120$$

$$6 \times \textcircled{1} = 6$$

$$20 + 1 = 21 \text{ apples}$$

answer: 21 apples



Guided Practice



Complete the equations to solve each problem.

1. A sports store packaged 416 golf balls by placing 8 golf balls in each package. How many packages did they make?

$$416 \div 8 = p$$

$$8 \times 50 = 400$$

$$8 \times p = 416$$

$$8 \times 2 = 16$$

answer: _____ packages

2. A farmer shared 144 watermelon seeds equally among 4 farmers. How many seeds did each farmer receive?

$$144 \div 4 = s$$

$$4 \times 30 = \underline{\hspace{2cm}}$$

$$4 \times s = 144$$

$$4 \times 6 = \underline{\hspace{2cm}}$$

answer: _____ seeds



Guided Practice



Solve each problem.

3. A baker made 165 bagels and placed 5 in each box. How many boxes of bagels were made?

answer: _____

4. A farmer shared 147 cucumbers equally among 7 customers at the farmers market. How many cucumbers did each customer receive?

answer: _____

5. A sports store packaged 192 tennis balls by placing 6 tennis balls in each package. How many packages did they make?

answer: _____



Check



Solve the problem.

A cook prepared 128 pancakes and served each customer 4 pancakes. How many customers were served pancakes?

answer: _____

Multiplying Up to Divide

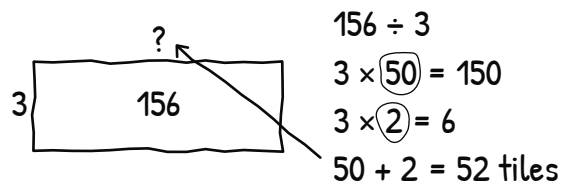
ML 6.11



Modeled Review

Name: Han

Jada used 156 tiles to create a rectangular mural. The mural is 3 tiles tall. How many tiles long is the mural? Use a diagram if it is helpful. Show your thinking.



answer: 52 tiles long



Guided Practice



Solve each story problem. Use a diagram if it is helpful. Show your thinking.

1. Clare had 144 square tiles to create a rectangular mural. The mural is 4 tiles tall. How many tiles long is the mural?



answer: _____

2. Jack used 176 square tiles to tile the floor in his room. The room is 8 tiles wide. How many tiles long is the room?



answer: _____



Guided Practice



Solve each story problem. Use a diagram if it is helpful. Show your thinking.

3. Priya is hanging wallpaper on a wall in her bathroom. She used 192 squares of wallpaper. The wall is 6 squares tall. How many squares long is the wall?

$$192 \div 6$$

$$6 \times \underline{\quad} = \underline{\quad}$$

$$6 \times \underline{\quad} = \underline{\quad}$$

answer: _____

4. Diego tiled a rectangular section of a shower that was 9 tiles tall. He used 216 tiles. How many tiles long is the section of the shower?

answer: _____

5. Avery had 210 square tiles to create a rectangular mural. The mural is 5 tiles tall. How many tiles long is the mural?

answer: _____



Check



Solve the story problem. Use a diagram if it is helpful. Show your thinking.

Dylan tiled a rectangular section of a shower that was 4 tiles tall. He used 172 tiles. How many tiles long is the section of the shower?

answer: _____

Decomposing Dividends to Calculate Quotients

ML 6.12



Modeled Review

Name: Priya

Calculate the quotient. Show your thinking.

$$642 \div 3 = \underline{214}$$

$$642 = 600 + 30 + 12$$

$$600 \div 3 = \textcircled{200}$$

$$30 \div 3 = \textcircled{10}$$

$$12 \div 3 = \textcircled{4}$$



Guided Practice



Calculate each quotient. Show your thinking.

1. $456 \div 4 = \underline{\hspace{2cm}}$

$$456 = 400 + 40 + 16$$

$$400 \div 4 = 100$$

$$40 \div 4 = 10$$

$$16 \div 4 = 4$$

2. $672 \div 6 = \underline{\hspace{2cm}}$

$$672 = 600 + 60 + 12$$

$$600 \div 6 = \underline{\hspace{1cm}}$$

$$60 \div 6 = \underline{\hspace{1cm}}$$

$$12 \div 6 = \underline{\hspace{1cm}}$$

3. $565 \div 5 = \underline{\hspace{2cm}}$

$$565 = 500 + 60 + 5$$

$$\underline{\hspace{1cm}} \div \underline{\hspace{1cm}} = \underline{\hspace{1cm}}$$

$$\underline{\hspace{1cm}} \div \underline{\hspace{1cm}} = \underline{\hspace{1cm}}$$

$$\underline{\hspace{1cm}} \div \underline{\hspace{1cm}} = \underline{\hspace{1cm}}$$

4. $992 \div 8 = \underline{\hspace{2cm}}$

$$992 = 800 + 160 + 32$$



Guided Practice



Calculate each quotient. Show your thinking.

5. $792 \div 6 =$ _____

$792 =$ _____ $+$ _____ $+$ _____

6. $1232 \div 4 =$ _____

$1232 =$ _____ $+$ _____ $+$ _____

7. $1744 \div 4 =$ _____

8. $435 \div 3 =$ _____



Check



Calculate the quotient. Show your thinking.

$615 \div 5 =$ _____

Connecting Division Strategies

ML 6.13



Modeled Review

Name: Maya

Calculate the quotient.

$$324 \div 6 = \underline{54}$$

$$324 = 300 + 24$$

$$6 \times 50 = 300$$

$$6 \times 4 = 24$$

$$50 + 4 = 54$$

$$324 \div 6 = 54$$

Name: Eva

Calculate the quotient.

$$324 \div 6 = \underline{54}$$

$$324 = 300 + 24$$

$$300 \div 6 = 50$$

$$24 \div 6 = 4$$

$$50 + 4 = 54$$

$$324 \div 6 = 54$$



Guided Practice



Calculate the quotient by multiplying up *and* using partial quotients. Show your thinking.

1. $642 \div 6 = \underline{\hspace{2cm}}$

$642 = 600 + 42$	$\underline{\hspace{1cm}} = \underline{\hspace{1cm}} + \underline{\hspace{1cm}}$
$6 \times 100 = 600$	$\underline{\hspace{1cm}} \div \underline{\hspace{1cm}} = \underline{\hspace{1cm}}$
$6 \times 7 = 42$	$\underline{\hspace{1cm}} \div \underline{\hspace{1cm}} = \underline{\hspace{1cm}}$
$100 + 7 = 107$	$\underline{\hspace{1cm}} + \underline{\hspace{1cm}} = \underline{\hspace{1cm}}$
$642 \div 6 = 107$	$\underline{\hspace{1cm}} \div \underline{\hspace{1cm}} = \underline{\hspace{1cm}}$

2. $927 \div 3 = \underline{\hspace{2cm}}$

$927 = 900 + 27$	$\underline{\hspace{1cm}} = \underline{\hspace{1cm}} + \underline{\hspace{1cm}}$
$3 \times 300 = 900$	$\underline{\hspace{1cm}} \div \underline{\hspace{1cm}} = \underline{\hspace{1cm}}$
$3 \times 9 = 27$	$\underline{\hspace{1cm}} \div \underline{\hspace{1cm}} = \underline{\hspace{1cm}}$
$\underline{\hspace{1cm}} + \underline{\hspace{1cm}} = \underline{\hspace{1cm}}$	$\underline{\hspace{1cm}} + \underline{\hspace{1cm}} = \underline{\hspace{1cm}}$
$\underline{\hspace{1cm}} \div \underline{\hspace{1cm}} = \underline{\hspace{1cm}}$	$\underline{\hspace{1cm}} \div \underline{\hspace{1cm}} = \underline{\hspace{1cm}}$



Guided Practice



Calculate the quotient by multiplying up *and* using partial quotients to divide. Show your thinking.

3. $756 \div 7 =$ _____

$756 = 700 + 56$

$756 = 700 + 56$

$7 \times 100 = 700$

$700 \div 7 = 100$

$\underline{\quad} \times \underline{\quad} = \underline{\quad}$

$\underline{\quad} \div \underline{\quad} = \underline{\quad}$

$\underline{\quad} + \underline{\quad} = \underline{\quad}$

$\underline{\quad} + \underline{\quad} = \underline{\quad}$

$\underline{\quad} \div \underline{\quad} = \underline{\quad}$

$\underline{\quad} \div \underline{\quad} = \underline{\quad}$

4. $432 \div 8 =$ _____

5. $288 \div 4 =$ _____



Check



Calculate the quotient by multiplying up *and* using partial quotients to divide. Show your thinking.

$864 \div 8 =$ _____

Dividing Multi-Digit Numbers Using Partial Quotients

ML 6.14



Modeled Review



Name: Diego

Calculate the quotient.

$$672 \div 3 = \underline{224}$$

$3 \overline{) 672}$			
$\underline{- 600}$	3×200	200	
72		20	
$\underline{- 60}$	3×20	$+ 4$	
12		$\underline{224}$	
$\underline{- 12}$	3×4		
0			



Guided Practice



Calculate the quotient.

1. $245 \div 5 = \underline{\hspace{2cm}}$

2. $1,233 \div 3 = \underline{\hspace{2cm}}$

$5 \overline{) 245}$			
$\underline{- 200}$	5×40	40	
45		$+ 9$	
$\underline{- 45}$	5×9	\square	
0			

$3 \overline{) 1,233}$			
$\underline{- 1,200}$	3×400	400	
33		$+ \square$	
$\underline{- \square}$	$3 \times \square$	\square	
\square			



Guided Practice



Calculate the quotient.

3. $920 \div 2 =$ _____

$$2 \overline{)920}$$

4. $2,416 \div 4 =$ _____

$$4 \overline{)2,416}$$

5. $292 \div 4 =$ _____

6. $1,120 \div 5 =$ _____



Check



Calculate the quotient.

$856 \div 4 =$ _____

Estimating Quotients

ML 6.15



Modeled Review

Name: Dylan

Estimate the quotient. Then determine the exact answer.

$$424 \div 4$$

$$424 \rightarrow 400$$

$$400 \div 4 = 100$$

estimate: 100

$4 \overline{) 424}$			
$\underline{- 400}$	4×100	100	
24			$\underline{+ 6}$
$\underline{- 24}$	4×6		106
0			

answer: 106

Guided Practice



Estimate the quotient.

1. $435 \div 5$

435 rounds to 400

$$400 \div 5 = \underline{\hspace{2cm}}$$

$435 \div 5$ is about

2. $264 \div 3$

264 rounds to 300

$$300 \div \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$$

$264 \div 3$ is about

3. $844 \div 4$

844 rounds to

$$\underline{\hspace{2cm}} \div \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$$

 \div is about

4. $1,821 \div 3$

1,821 rounds to

$$\underline{\hspace{2cm}} \div \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$$

 \div is about



Guided Practice



Estimate each quotient. Then determine the exact answer.

5. $742 \div 7$

estimate: _____

answer: _____

6. $4,182 \div 6$

estimate: _____

answer: _____



Check



Estimate the quotient. Then determine the exact answer.

$645 \div 3$

estimate: _____

answer: _____

Solving Story Problems

ML 6.16



Modeled Review

Name: Jada

Eva packs 1,872 crayons into boxes. She places 8 crayons in each box.
How many boxes does she use?

$8 \overline{) 1,872}$		
$\underline{- 1,600}$	8×200	200
$\quad 272$		30
$\underline{- 240}$	8×30	$+ 4$
$\quad 32$		<u>234</u>
$\underline{- 32}$	8×4	
$\quad 0$		

answer: 234 boxes

Guided Practice



Solve the problem. Show your work.

- Dylan has 415 baseball card packs. Each pack contains 3 baseball cards. How many baseball cards does Dylan have in total?

answer: _____



Guided Practice



Solve each problem. Show your work.

2. Jack bought 4 treasure chests for a party. Each chest is filled with 2,487 gold coins. How many gold coins does Jack have for the party?

answer: _____

3. An art teacher bought 1,320 pencils. He put them in 6 pencil cases. How many pencils did he put in each pencil case?

answer: _____

4. Clare has 864 beads. She divides them equally among 8 friends. How many beads does each friend receive?

answer: _____



Check



Solve the problem. Show your work.

Santiago is placing 735 toy cars in boxes. He packs 7 toy cars in each box. How many boxes does he need to pack all the toy cars?

answer: _____

Solving Division Problems With Remainders

ML 6.17



Modeled Review



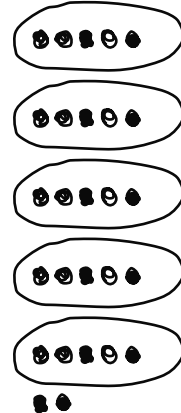
Name: Santiago

The library has 27 chairs and 5 tables. If the same number of chairs is placed at each table, how many chairs can be placed at each table? Will there be any extra chairs? If so, how many?

$$5 \times 5 = 25$$

$$25 + 2 = 27$$

5 chairs can be placed at each table.
There will be 2 extra chairs.



Guided Practice



1. Solve the story problems.

Problem	Division expression	Array	Answer
There are 19 identical socks. How many pairs of socks are there? Will there be any socks without a match? If so, how many?	$19 \div 2$		9 pairs of socks can be made. There will be ____ sock(s) without a match.
Priya has 17 buttons to sew onto dresses. She uses 3 buttons for each dress. How many dresses can she make? Will there be any buttons remaining? If so, how many?	$17 \div 3$		____ dresses can be made. There will be ____ buttons remaining.



Guided Practice



2. Solve the story problems. Draw an array if it is helpful.

Problem	Workspace	Answer
Eva has 27 beads to make bracelets. She uses 6 beads to make each bracelet. How many bracelets can she make? Will there be any beads left over? If so, how much?	$27 \div 6$	
Han has 21 lemons to make lemonade. He uses 4 lemons in each pitcher of lemonade. How many pitchers of lemonade can he make? How many lemons will he have left?	$21 \div 4$	
Avery has 14 charms to make bracelets. She uses 3 charms on each bracelet. How many bracelets can she make? How many charms will she have left?		



Check



Solve the story problem. Draw an array if it is helpful.

Jack has 18 peaches to make jam. He uses 4 peaches in each jar of jam. How many jars of jam can he make? How many peaches will he have left?

Using Multiplication and Addition to Solve Division Problems

ML 6.18



Modeled Review

Name: Eva

Jada bought 14 flowers. If she puts 6 flowers in each vase, how many vases will she use? Will there be any flowers left over?

division expression: 14 ÷ 6

Jada will use 2 vases.

There will be 2 flower(s) left over.

$$6 \times 2 = 12$$

$$12 + 2 = 14$$



Guided Practice



Solve each story problem.

- Diego has 23 books. He puts 5 books on each shelf. How many shelves will he use? Will there be any books left over?

division expression: $23 \div 5$

The closest multiplication equation I can use is $5 \times 4 = 20$.

Diego will use shelves.

$$20 + 3 = 23$$

He will have book(s) left over.

- Avery has 32 crayons. She puts 6 crayons in each box. How many boxes of crayons does she have? Will there be any crayons left over?

division expression: $32 \div 6$

The closest multiplication equation I can use is × = .

Avery will use boxes.

She will have crayon(s) left over.



Guided Practice



Write a division expression and solve the story problem.

3. Dylan has 41 toy cars. He puts 8 cars in each basket. How many baskets will he use? Will there be any cars left over?

division expression: $41 \div 8$

___ \times ___ = ___

Dylan will use ___ baskets.

He will have ___ car(s) left over.

4. Tristan has 27 paint brushes. He puts 4 paint brushes in each cup. How many cups does he have? Will there be any paint brushes left over?

division expression: ___ \div ___

Tristan will use ___ cups.

He will have ___ paint brush(es) left over.

5. Clare has 19 charms. She puts 3 charms on each bracelet. How many charm bracelets can she make? Will there be any charms left over?

division expression: ___ \div ___

Clare can make ___ charm bracelets.

She will have ___ charm(s) left over.



Check



Write a division expression and solve the story problem.

Santiago has 26 sunflowers. He puts 7 sunflowers in each vase. How many vases of sunflowers does he have? Will there be any sunflowers left over?

division expression: ___ \div ___

Santiago will use ___ vases.

He will have ___ sunflower(s) left over.

Interpreting Remainders in Division Problems

ML 6.19



Modeled Review

Name: Jada

90 students are going on a field trip. Each van holds 8 students. How many vans are needed to transport the students?

$$90 \div 8$$

$$8 \times 11 = 88$$

$$90 - 88 = 2 \text{ students left over}$$

answer: 11 + 1 = 12 vans



Guided Practice



1. Solve each story problem.

Problem	Workspace	Answer
102 cars need to travel by ferry boat to an island. Each ferry boat only holds 10 cars. How many ferries are needed to move the cars to the island?	$102 \div 10$ $10 \times 10 = 100$ $102 - 100 = 2 \text{ cars left over}$	$10 + 1 = \underline{\quad} \text{ ferry boats}$
45 muffins are boxed for the bakery. Each box holds 6 muffins. How many full boxes of muffins can be made?	$45 \div 6$ $6 \times \underline{\quad} = \underline{\quad}$ $\underline{\quad} - \underline{\quad} = \underline{\quad} \text{ muffins left over}$	$\underline{\quad} \text{ full boxes of muffins}$



Guided Practice



2. Solve each story problem. Show your thinking.

Problem	Workspace	Answer
A florist has 42 flowers to place in vases. Each vase holds 4 flowers. How many full vases of flowers can the florist make?	$42 \div 4$	___ full flower vases
Eva is planning a birthday party. Each table holds 5 people. She has 17 guests coming to the party. How many tables will she need to seat everyone?		
Diego has 39 tomato plants to plant in his garden. Each row holds 7 plants. How many rows will he need to plant all of the tomato plants?		



Check



Solve the story problem. Show your thinking.

The pet store received 44 fish. Each fish tank can hold 8 fish. How many fish tanks will they need to hold all of the fish?

answer: _____

Solving Two-Step Problems

ML 6.20



Modeled Review



Name: Avery

A librarian puts 1,260 books equally on 9 shelves. She then receives another 45 books to put on each shelf. How many books will be on each shelf now?

$$\begin{array}{r}
 9 \overline{) 1,260} \\
 \underline{- 900} \quad 9 \times 100 \quad 100 \\
 360 \\
 \underline{- 360} \quad 9 \times 40 \quad \begin{array}{r} + 40 \\ 140 \end{array} \\
 0
 \end{array}$$

$140 + 45 = 185$

answer: 185 books



Guided Practice



Solve the story problem. Show your thinking.

- Workers loaded 864 boxes equally into 8 trucks. Then, 6 boxes were removed from each truck. How many boxes were left on each truck?

Information I know	I am trying to figure out...	The information I need to solve for first is...
864 boxes 8 trucks 6 boxes removed	Total number of boxes left on each truck	Total number of boxes on each truck before removal
Workspace		Answer



Guided Practice



Solve each story problem. Show your thinking.

2. A farmer has 8 apple trees. Each tree produces 295 apples. She keeps 150 apples and sells the rest. How many apples will she sell?

Information I know	I am trying to figure out...	The information I need to solve for first is...
8 apple trees 295 apples on each tree 150 apples for family		
Workspace		Answer

3. A school orders 412 rulers for students. Each ruler costs \$3. The school pays an additional \$28 for shipping. What is the total amount the school spends?

answer: _____



Check



Solve the story problem. Show your thinking.

- A bookstore received 186 new books each day for 8 days. After a big sale, 1,200 of those books were sold. How many books are left?

answer: _____

Solving Problems Involving Area and Perimeter

ML 6.21



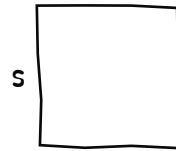
Modeled Review

Name: Tristan

A square has a perimeter of 252 inches. What is the length of each side?

$$\begin{array}{l} 252 \div 4 = s \\ \downarrow \quad \swarrow \\ 240 + 12 \end{array}$$

$$\begin{array}{l} 240 \div 4 = \textcircled{60} \\ 12 \div 4 = \textcircled{3} \\ 60 + 3 = 63 \end{array}$$



answer: 63 inches



Guided Practice



1. A rectangle has an area of 446 square inches. The length is 2 inches. What is the width?

answer: _____

2. A square has a perimeter of 136 inches. What is the length of each side?

answer: _____



Guided Practice



3. A rectangle measures 3 feet wide and 257 feet long. What is the area of the rectangle?

answer: _____

4. A rectangle measures 32 feet wide and 26 feet long. What is the area of the rectangle?

answer: _____



Check



A rectangle measures 17 inches wide and 48 inches long. What is the area of the rectangle?

answer: _____

Solving Multi-Step Problems Using More Than One Operation

ML 6.22



Modeled Review

Name: Maya

There are 27 students in a class. Each student needs 3 pencils. If pencils come in packs of 10, how many packs are needed for the class?

$$\begin{array}{r} \text{Total pencils:} \quad 27 \\ \times \quad 3 \\ \hline 21 \\ + 60 \\ \hline 81 \end{array}$$

$$\begin{array}{r} \text{Total packs} \\ \text{needed:} \quad 10 \overline{) 81} \\ \quad \underline{- 80} \quad 10 \times 8 \\ \quad \quad 1 \end{array}$$

8 packs with a
remainder of 1 pencil

answer: 9 packs



Guided Practice



Solve the story problem. Show your thinking.

1. A bookstore has 750 copies of a book. They sold 250 copies. The remaining books are to be packed in boxes of 8. How many boxes will be needed?

Total books
after sale:

Total boxes
needed:

answer: _____



Guided Practice



Solve each story problem. Show your thinking.

2. A book company needs to pack 325 non-fiction books and 160 fiction books in boxes. Each box can hold up to 6 books. How many boxes are needed to pack all of the books?

Total books:

Total boxes:

answer: _____

3. A coach is placing water bottles for a sports event into crates. There are 28 players. Each player gets 2 water bottles. If each crate holds 8 water bottles, how many crates are needed?

answer: _____



Check



Solve the story problem. Show your thinking.

An art teacher needs 3 glue sticks for each of his 102 students. Glue sticks come in packs of 9. How many packs should he buy?

answer: _____

Unit 7

Mini-Lessons

Identifying Points, Lines, Line Segments, and Rays

ML 7.02



Modeled Review



Name: Clare

Complete the table using the word bank.

line	ray	line segment
line segment	line	ray



Guided Practice



1. Match the word to the correct image by writing the letter on the line.

- A. ray _____
- B. line _____
- C. line segment _____
- D. point _____



Guided Practice



2. Draw and label an image that matches the directions. Use a ruler or straightedge if it is helpful.


Draw two points and label them <i>A</i> and <i>B</i> .	
Draw a line segment that connects points <i>C</i> and <i>D</i> .	
Draw a line.	
Draw a ray with endpoint <i>E</i> .	



Check



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

	True	False
A point marks a location.		
This is a drawing of a line. 		
A line can be curved or straight.		

2. Draw and label an image that matches the directions. Use a ruler or straightedge if it is helpful.

Draw a line segment that connects points <i>X</i> and <i>Y</i> .	
Draw a ray with endpoint <i>W</i> .	

Identifying and Drawing Intersecting, Perpendicular, and Parallel Lines

ML 7.03



Modeled Review



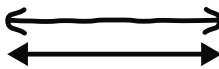
Name: Santiago

1. Are these two lines perpendicular? Explain your thinking.



No. These are intersecting lines. If they were perpendicular they would create right angles.

2. Draw a line that is parallel to the given line.

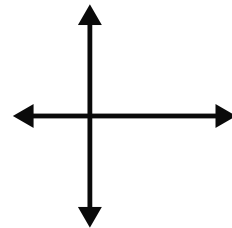


Guided Practice

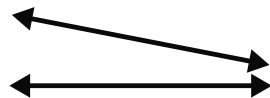


1. Match the term to the correct image by writing the number on the line.

A. intersecting lines



B. parallel lines



C. perpendicular lines



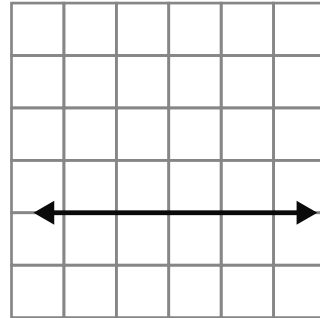


Guided Practice



For Problems 4 and 5, use the grid and the given line.

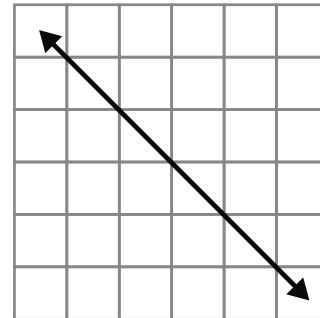
4. Draw a line that is parallel.



5. Draw a line that intersects.

For Problems 6 and 7, use the grid and the given line.

6. Draw a line that is parallel.



7. Draw a line that is perpendicular.

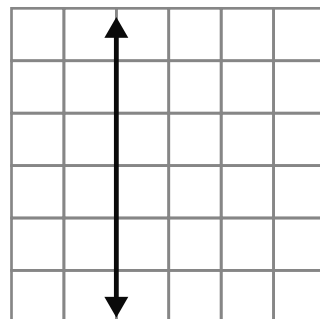


Check



For Problems 1 and 2, use the grid and the given line.

1. Draw a line that is parallel.



2. Draw a line that intersects.

Identifying Lines, Line Segments, Points, and Rays in Shapes

ML 7.04

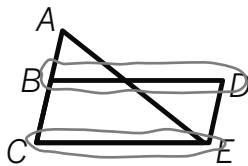


Modeled Review

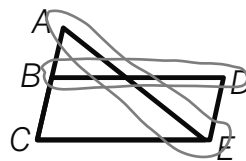


Name: Priya

1. Circle two line segments that are parallel.



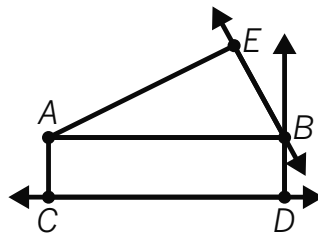
2. Circle two line segments that intersect.



Guided Practice



Label each part of the geometric figure using the terms from the word bank.



line

line segment

point

ray

1. AE _____

2. CD _____

3. DB _____

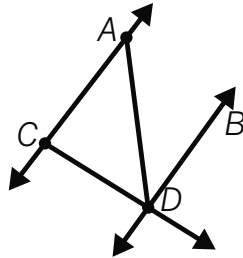
4. A _____



Guided Practice



Label each part of the geometric figure using the terms from the word bank.



perpendicular lines

intersecting lines

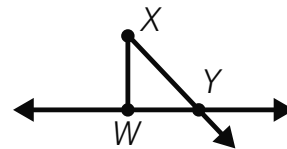
parallel lines

5. AD and BD _____

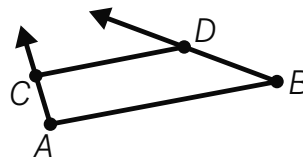
6. DB and CD _____

7. AC and BD _____

8. Circle *two* lines that are perpendicular.



9. Circle *two* lines that are parallel.

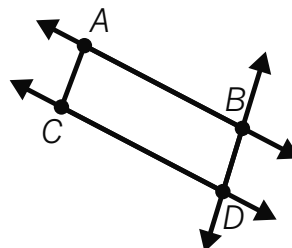
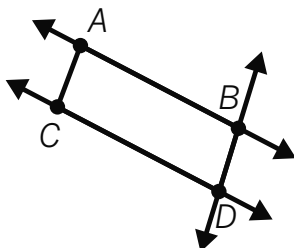


Check



1. Circle *two* lines that are parallel.

2. Circle *two* lines that intersect.



Identifying and Naming Angles

ML 7.05

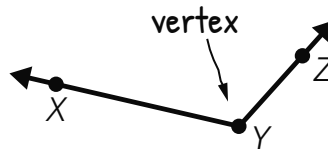


Modeled Review



Name: Tristan

Name the angle in *three* different ways.



answer: angle Y, angle ZYX, angle XYZ

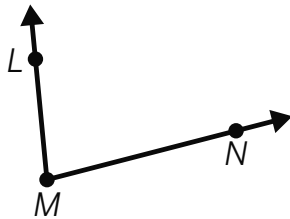


Guided Practice



Name each ray. Then name the angle in *three* different ways.

1.



ray: MN

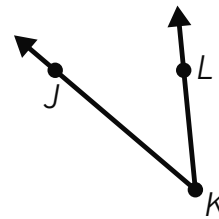
angle: LMN

ray: ML

angle: NML

angle: _____

2.



ray: KJ

angle: JKL

ray: KL

angle: _____

angle: _____

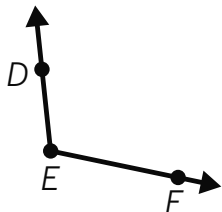


Guided Practice



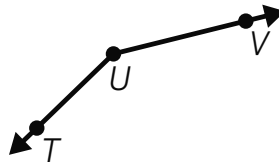
Name each ray. Then name the angle in *three* different ways.

3.



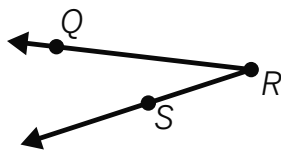
ray: ED angle: DEF
ray: _____ angle: _____
 angle: _____

4.



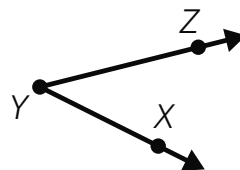
ray: UT angle: _____
ray: _____ angle: _____
 angle: _____

5.



ray: _____ angle: _____
ray: _____ angle: _____
 angle: _____

6.



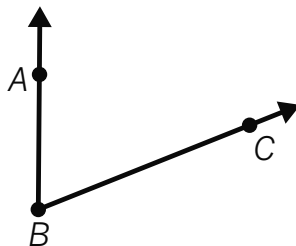
ray: _____ angle: _____
ray: _____ angle: _____
 angle: _____



Check



Name the angle.



answer: _____

Comparing Angles

ML 7.06

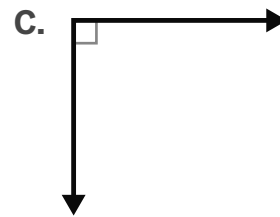
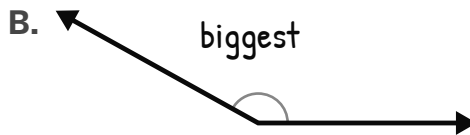
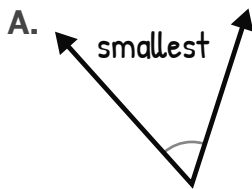


Modeled Review



Name: Jack

Order the angles from smallest angle to largest angle.



smallest A , C , B largest



Guided Practice



- Complete the table by circling the *larger* angle in each row. Use your angle tool if it is helpful.

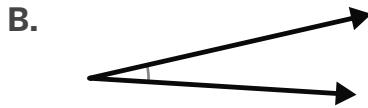
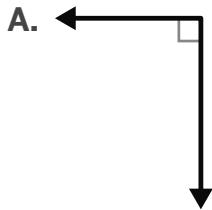
Angle A	Angle B



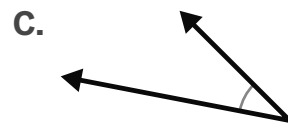
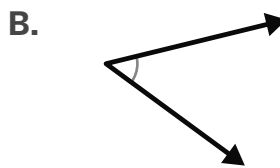
Guided Practice



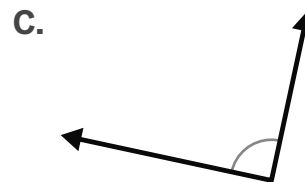
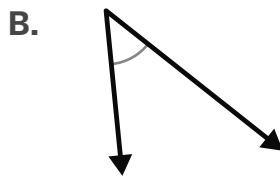
2. Order the angles from smallest angle to largest angle.



smallest _____, _____, _____ largest



smallest _____, _____, _____ largest



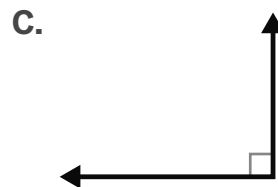
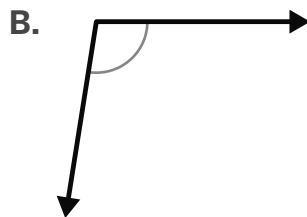
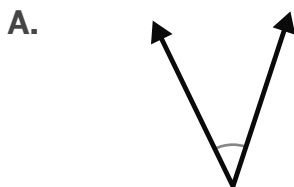
smallest _____, _____, _____ largest



Check



Order the angles from smallest angle to largest angle.



smallest _____, _____, _____ largest

Determining Benchmark Angle Measures

ML 7.07



Modeled Review

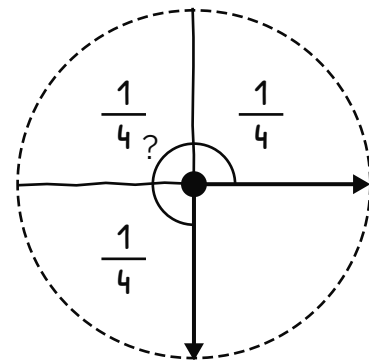


Name: Eva

A full turn around a circle is 360° .
 Determine the fraction of the turn.
 Then determine the measure of the
 given angle.

fraction of a turn: $\frac{3}{4}$

measure of the angle: 270°



$$90 + 90 + 90 = 270$$

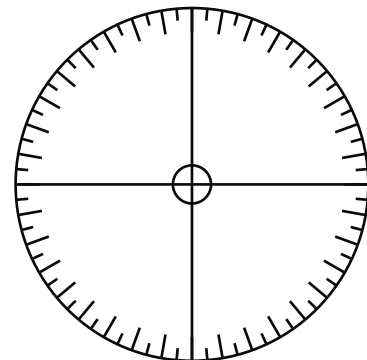


Guided Practice



1. A full turn around a circle is 360° . Determine how many of each given angle makes a full turn around the circle, as well as what fraction of a full turn each angle represents.

Angle	How many of those angles make a full turn?	What is the fraction of a full turn?
10°	36	$\frac{10}{360}$ or $\frac{1}{36}$
30°	_____	_____ or _____
40°	_____	_____ or _____
60°	_____	_____ or _____



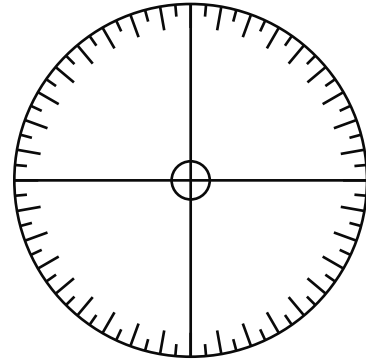


Guided Practice



2. A full turn around a circle is 360° . Determine how many of each given angle makes a full turn around the circle, as well as what fraction of a full turn each angle represents.

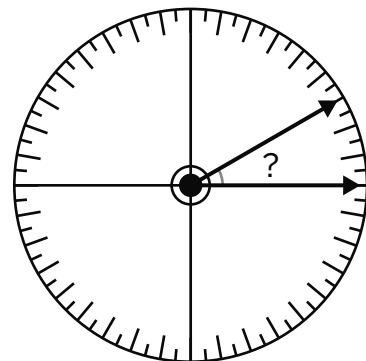
Angle	How many of those angles make a full turn?	What is the fraction of a full turn?
45°	_____	_____ or _____
180°	_____	_____ or _____



3. A full turn around a circle is 360° . Determine the fraction of the turn. Then determine the measure of the given angle.

fraction of a turn: _____

measure of the angle: _____



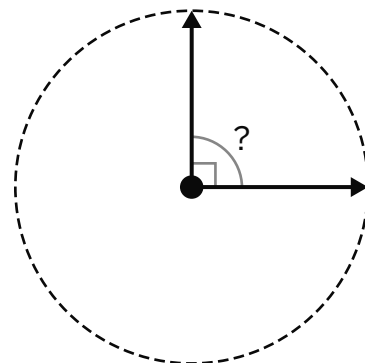
Check



A full turn around a circle is 360° . Determine the fraction of the turn. Then determine the measure of the given angle.

fraction of a turn: _____

measure of the angle: _____



Measuring Angles

ML 7.08



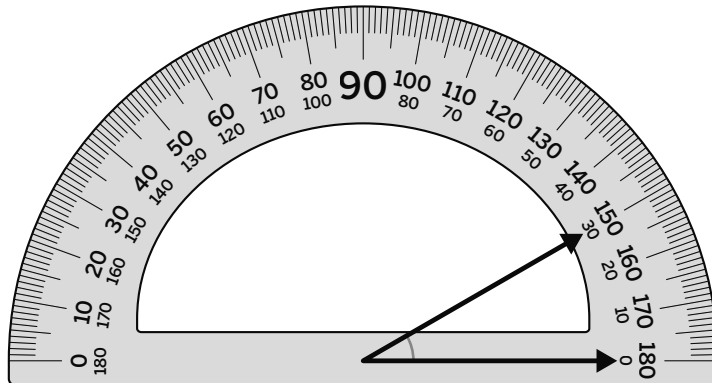
Modeled Review



Name: Han

Use the protractor to determine the measurement of the angle in degrees.

answer: 30°

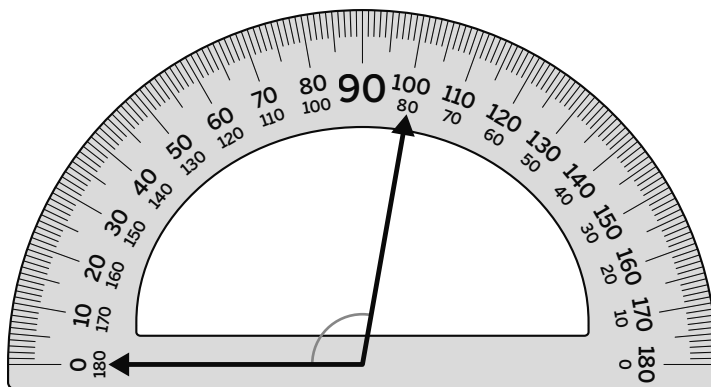


Guided Practice



Select the word that makes the statement true. Use the protractor to measure the angle.

1.



The angle is more or less than 90° .

The angle measures _____ degrees.

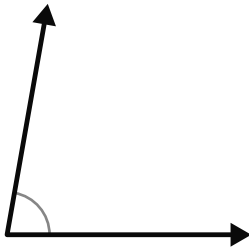


Guided Practice



Select the word that makes the statement true. Then use a protractor to measure the angle.

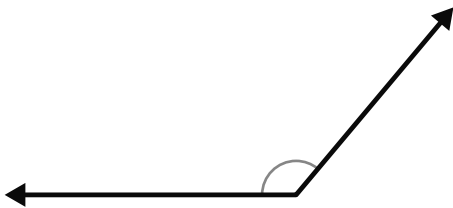
2.



The angle is *more* or *less* than 90° .

The angle measures _____ degrees.

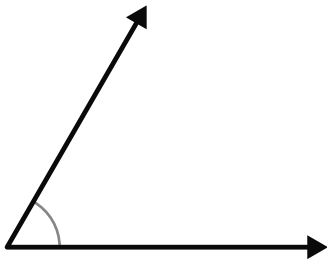
3.



The angle is *more* or *less* than 90° .

The angle measures _____ degrees.

4.



The angle is *more* or *less* than 90° .

The angle measures _____ degrees.

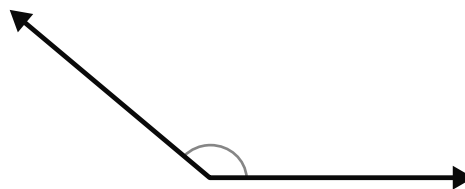


Check



Use the protractor to determine the measurement of the angle in degrees.

answer: _____



Identifying Acute, Obtuse, Right, and Straight Angles

ML 7.09



Modeled Review



Name: Avery

Identify each angle as acute, right, obtuse, or straight. Then record the angle measure.

right 90°	obtuse 120°	straight 180°	acute 60°



Guided Practice



- Complete the table by labeling each angle. Use a protractor to measure if it is helpful.



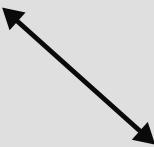
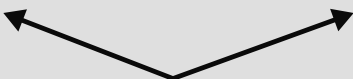
	Acute, right, or obtuse	Greater than, less than, or equal to 90°
		greater than 90°
	acute	
		equal to 90°



Guided Practice



2. Identify each angle as acute, right, obtuse, or straight. Then record the angle measure.

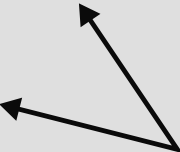
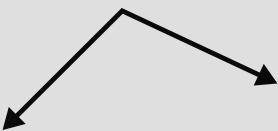
	Acute, right, obtuse, or straight	Measurement in degrees
		
		
		
		



Check



- Identify each angle as acute, right, obtuse, or straight. Then record the angle measure.

	Acute, right, obtuse, or straight	Measurement in degrees
		
		

Drawing Angles

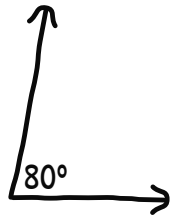
ML 7.10



Modeled Review

Name: Diego

Use a protractor and a ruler to draw an angle that measures 80° . Label the measurement and explain the steps you took to draw the angle.



I drew a straight bottom line.
Next I used a protractor to mark 80° .
I drew a line from the bottom line
to the mark.



Guided Practice



1. Use a protractor and a ruler or straightedge to draw each angle.

Draw an acute angle.	
Draw an acute angle that measures 30° .	
Draw an obtuse angle that measures 110° .	



Guided Practice



2. Use a protractor and a ruler or straightedge to draw each angle. Label the measurement.

Draw an obtuse angle.	
Draw an acute angle that measures 70° .	
Draw an obtuse angle that measures 160° .	



Check



Use a protractor and a ruler or straightedge to draw an angle that measures 100° . Label the measurement.

Determining Unknown Angle Measurements

ML 7.11



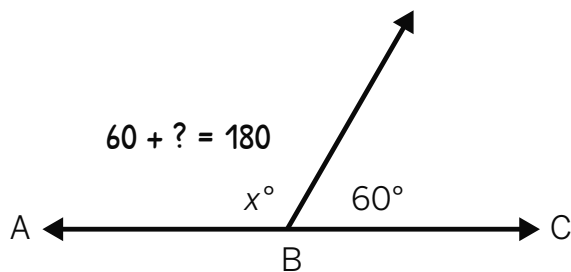
Modeled Review



Name: Jada

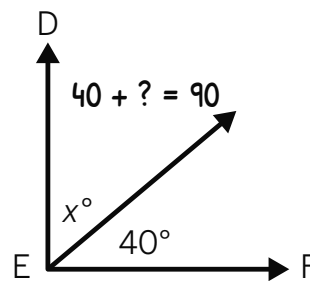
Use the information given to determine the measurement of the unknown angle.

1. $\angle ABC$ is a straight angle.



$x = \underline{\quad 120 \quad}$

2. $\angle DEF$ is a right angle.



$x = \underline{\quad 50 \quad}$

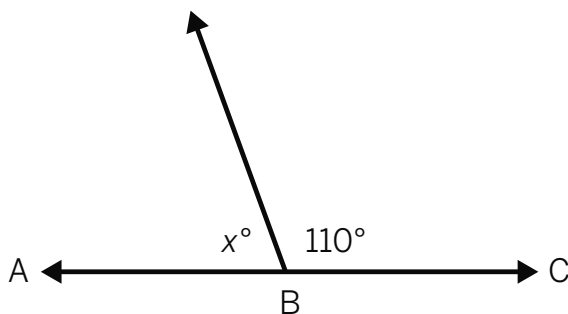


Guided Practice



Use the information given to determine the measurement of the unknown angle. Write an equation to show your thinking.

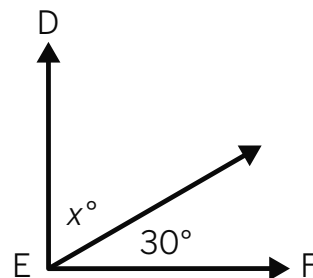
1. $\angle ABC$ is a straight angle.



$110 + \underline{\quad} = 180$

$x = \underline{\quad}$

2. $\angle DEF$ is a right angle.



$30 + \underline{\quad} = \underline{\quad}$

$x = \underline{\quad}$

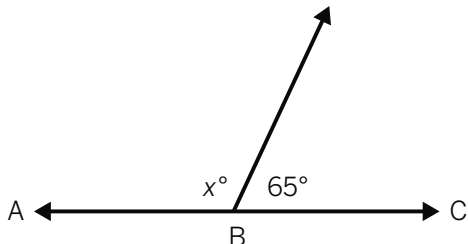


Guided Practice



Use the information given to determine the measurement of the unknown angle. Write an equation to show your thinking.

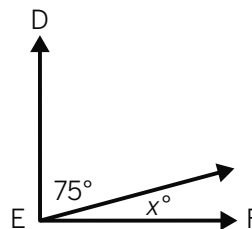
3. $\angle ABC$ is a straight angle.



equation: _____

$x =$ _____

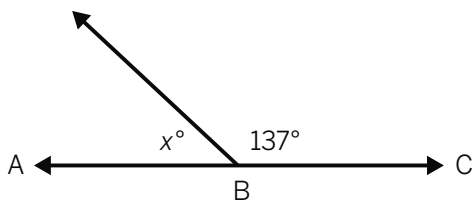
4. $\angle DEF$ is a right angle.



equation: _____

$x =$ _____

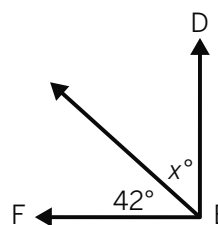
5. $\angle ABC$ is a straight angle.



equation: _____

$x =$ _____

6. $\angle DEF$ is a right angle.



equation: _____

$x =$ _____

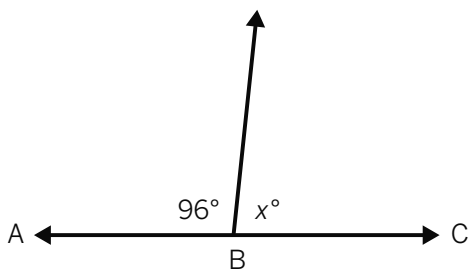


Check



Use the information to determine the measurement of the unknown angle. Write an equation to show your thinking.

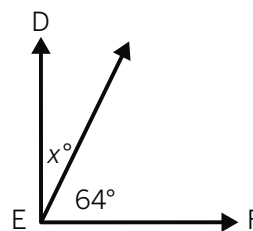
1. $\angle ABC$ is a straight angle.



equation: _____

$x =$ _____

2. $\angle DEF$ is a right angle.



equation: _____

$x =$ _____

Classifying Two-Dimensional Figures

ML 7.12

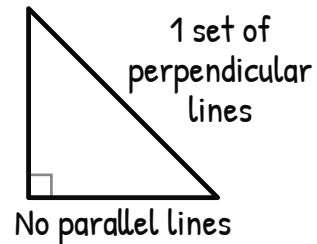
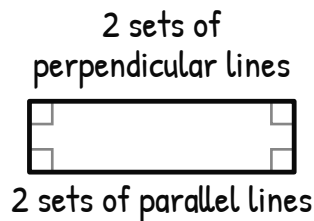
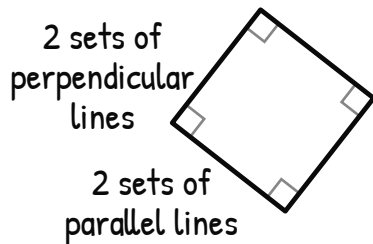


Modeled Review



Name: Santiago

The three shapes have some attributes in common. Use check marks to show if the statement is true or false.



	True	False
All three shapes have <i>at least</i> one set of perpendicular sides.	✓	
All three shapes have parallel sides.		✓

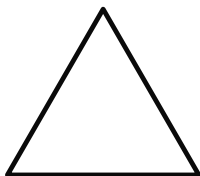


Guided Practice



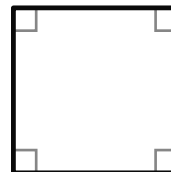
Check all the attributes that describe the shape.

1.



- 3 sides
- 4 sides
- All equal sides
- Parallel sides
- Perpendicular sides
- Acute angles

2.



- 3 sides
- 4 sides
- All equal sides
- Parallel sides
- Perpendicular sides
- Acute angles



Guided Practice

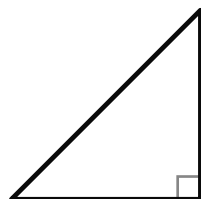


Write the letter of the shape that fits the category. Some categories may have more than one answer.

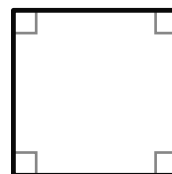
A.



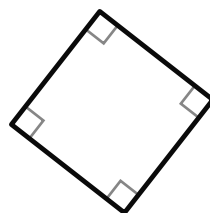
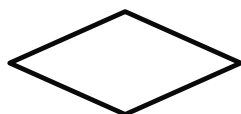
B.



C.



3. 4 sides _____
4. 1 set of perpendicular sides _____
5. 2 sets of parallel sides _____
6. 4 right angles _____
7. 1 set of parallel sides _____
8. 4 equal sides _____
9. The two shapes have some attributes in common. Use check marks to show if the statement is true or false.



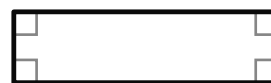
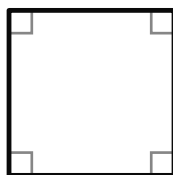
	True	False
Both shapes have <i>at least</i> one set of perpendicular lines.	<input type="checkbox"/>	<input type="checkbox"/>
Both shapes have two sets of parallel sides.	<input type="checkbox"/>	<input type="checkbox"/>



Check



The three shapes have some attributes in common. Use check marks to show if the statement is true or false.



	True	False
All three shapes have <i>at least</i> one set of perpendicular lines.	<input type="checkbox"/>	<input type="checkbox"/>
All three shapes have parallel sides.	<input type="checkbox"/>	<input type="checkbox"/>
All three shapes have four equal sides.	<input type="checkbox"/>	<input type="checkbox"/>

Classifying Triangles Based on Their Angles

ML 7.13



Modeled Review

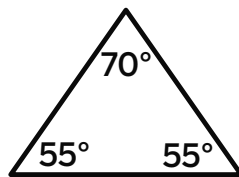
Name: Kai

Name the type of triangle using the word bank. Explain your thinking.

acute triangle

obtuse triangle

right triangle



type of triangle: acute triangle

It does not have a right angle. It has three angles that are all less than 90° .

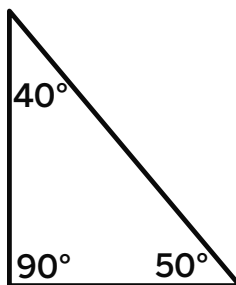


Guided Practice



Check the attribute that describes each triangle. Then name the type of triangle.

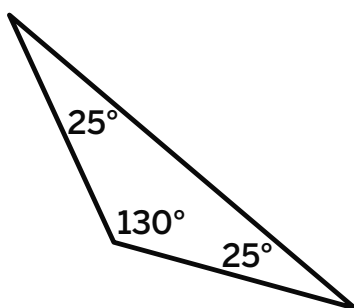
1.



- Has a right angle
 Has all acute angles
 Has an obtuse angle

type of triangle: _____

2.



- Has a right angle
 Has all acute angles
 Has an obtuse angle

type of triangle: _____

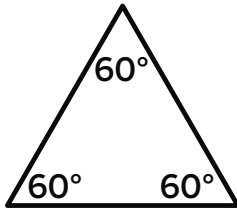


Guided Practice



For Problems 3 and 4, check the attribute that describes each triangle. Then name the type of triangle.

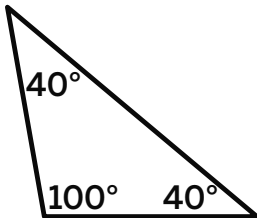
3.



- Has a right angle
- Has all acute angles
- Has an obtuse angle

type of triangle: _____

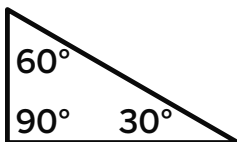
4.



- Has a right angle
- Has all acute angles
- Has an obtuse angle

type of triangle: _____

5. Name the type of triangle. Explain your thinking.



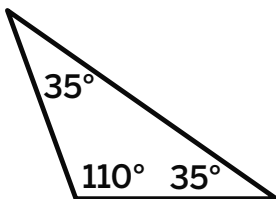
type of triangle: _____



Check



Name the type of triangle. Explain your thinking.



type of triangle: _____

Classifying Triangles Based on Their Side Lengths

ML 7.14



Modeled Review



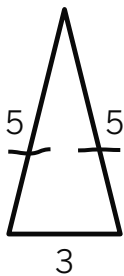
Name: Maya

Name the type of triangle using the word bank.

scalene triangle

equilateral triangle

isosceles triangle



3 sides and 2 equal sides

type of triangle: isosceles triangle

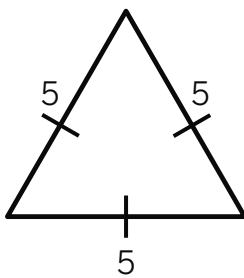


Guided Practice



Check the attribute that describes each triangle. Then name the type of triangle.

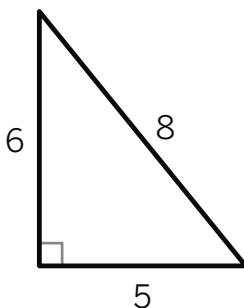
1.



- Has no equal sides
- Has two equal sides
- Has all equal sides

type of triangle: _____

2.



- Has no equal sides
- Has two equal sides
- Has all equal sides

type of triangle: _____

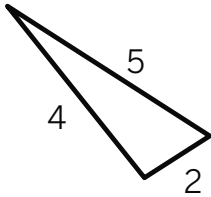


Guided Practice



For Problems 3 and 4, check the attribute that describes each triangle. Then name the type of triangle.

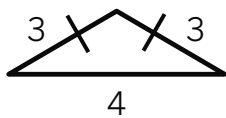
3.



- Has no equal sides
- Has two equal sides
- Has all equal sides

type of triangle: _____

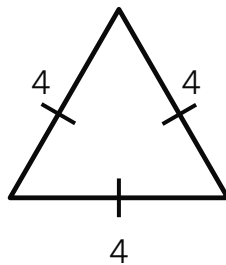
4.



- Has no equal sides
- Has two equal sides
- Has all equal sides

type of triangle: _____

5. Name the type of triangle.



type of triangle: _____



Check

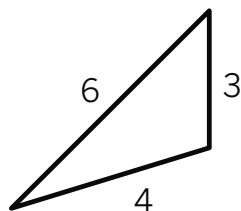


Name the type of triangle using the word bank.

scalene triangle

equilateral triangle

isosceles triangle



type of triangle: _____

Classifying Quadrilaterals

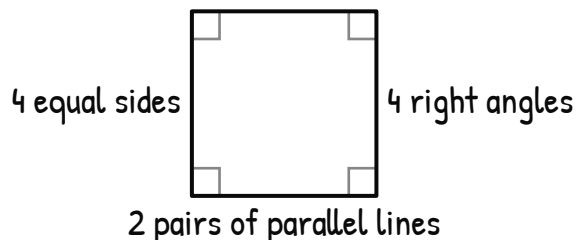
ML 7.15



Modeled Review

Name: Jack

Circle *all* the ways you could classify the shape.



- A. parallelogram
- B. quadrilateral
- C. triangle
- D. rhombus
- E. rectangle
- F. square

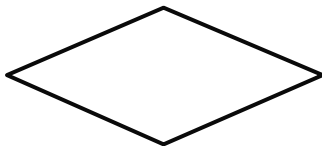


Guided Practice



Circle *all* the ways you could classify each shape.

1.



- A. square
- B. rectangle
- C. quadrilateral
- D. parallelogram
- E. rhombus
- F. triangle

2.



- A. parallelogram
- B. quadrilateral
- C. triangle
- D. rhombus
- E. rectangle
- F. square



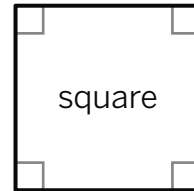
Guided Practice



Identify and select the similarities and differences of the two shapes.

3. What attribute do these shapes have in common?

- A. two pairs of parallel sides
- B. two acute and two obtuse angles
- C. four right angles



4. What makes the *square* different?

- A. all equal sides
- B. two acute angles
- C. one pair of parallel lines



5. What makes the *rectangle* different?

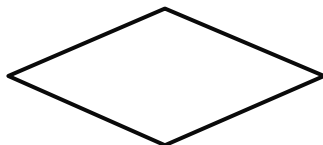
- A. two obtuse angles
- B. no parallel lines
- C. two pairs of equal sides



Check



Circle *all* the ways you could classify the shape.



- A. square
- B. rhombus
- C. triangle
- D. quadrilateral
- E. rectangle
- F. parallelogram

Identifying Lines of Symmetry

ML 7.16

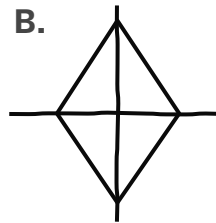
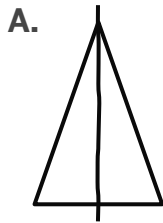


Modeled Review



Name: Avery

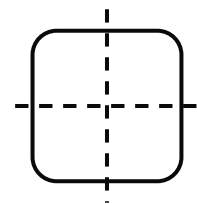
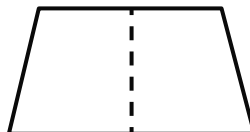
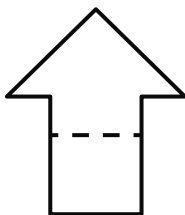
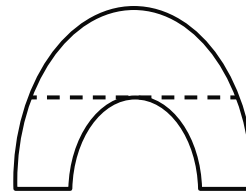
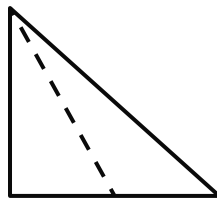
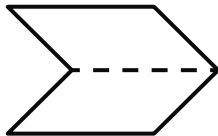
Draw *all* the lines of symmetry for each figure.



Guided Practice



1. Circle *all* of the figures that have correct lines of symmetry drawn.



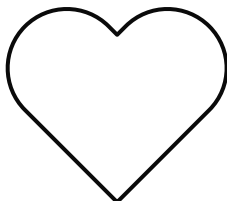


Guided Practice

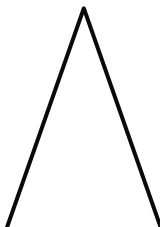


Use a ruler or straightedge to draw *all* the lines of symmetry on each figure. Some figures may have more than one line of symmetry.

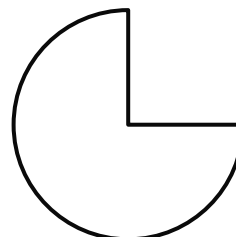
2.



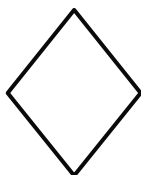
3.



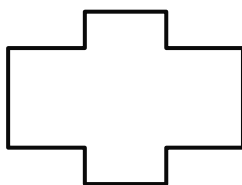
4.



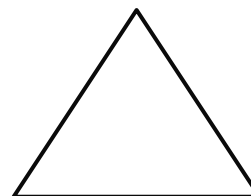
5.



6.



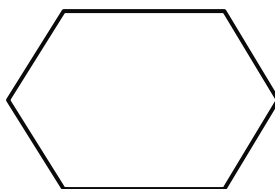
7.



Check



Use a ruler or straightedge to draw *all* the lines of symmetry on the figure.



Drawing Figures Using Lines of Symmetry

ML 7.17

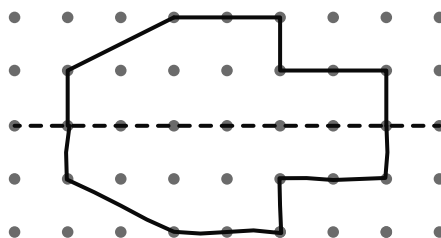


Modeled Review



Name: Eva

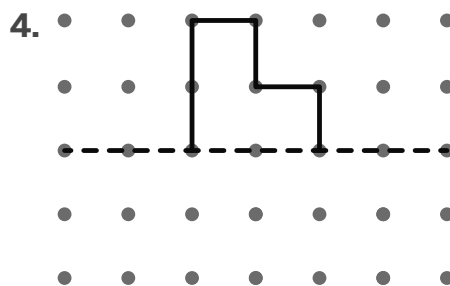
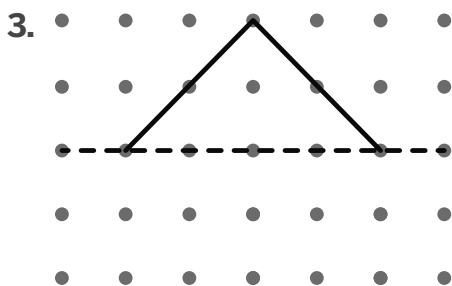
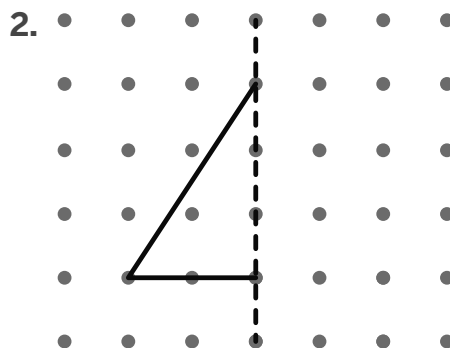
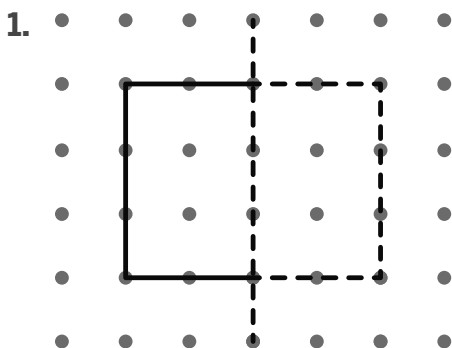
Half of the figure has been drawn. Use the line of symmetry, represented by the dashed line, to complete the figure.



Guided Practice



Draw the other half of the figure using the line of symmetry.

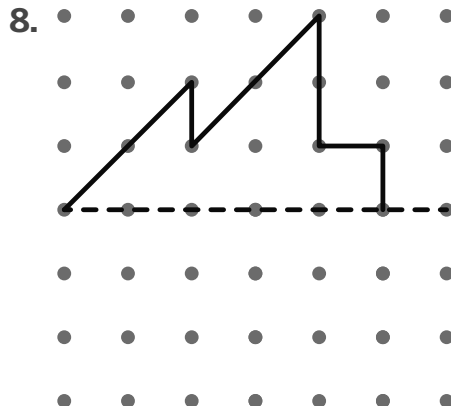
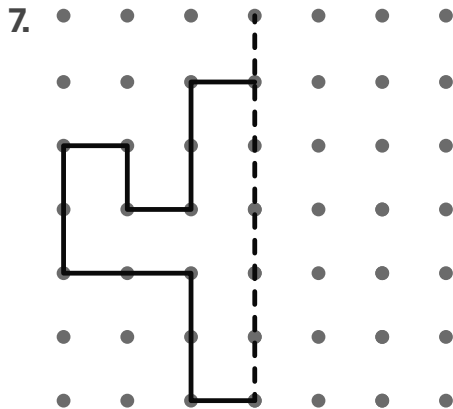
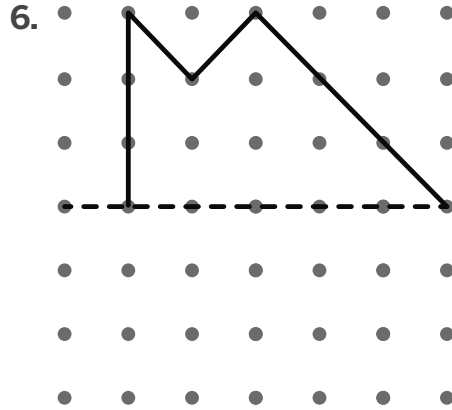
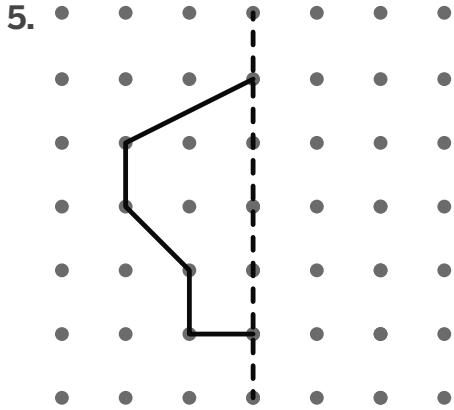




Guided Practice



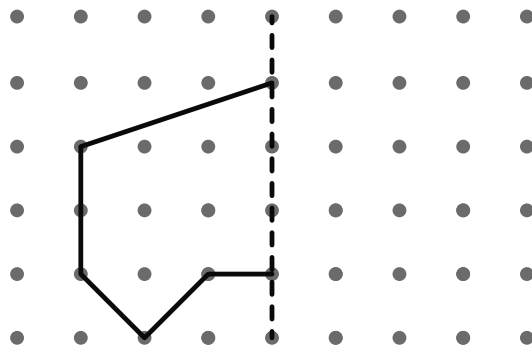
Draw the other half of the figure using the line of symmetry.



Check



Half of the figure has been drawn. Use the line of symmetry, represented by the dashed line, to complete the figure.



Determining Unknown Angle Measurements Using Symmetry

ML 7.18

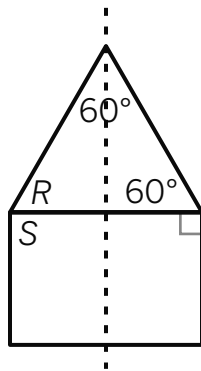


Modeled Review



Name: Jack

The dashed line represents a line of symmetry for the figure. Determine the measurements of angles *R* and *S*.



angle *R*: 60°

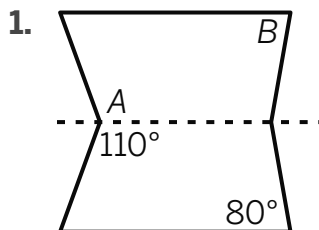
angle *S*: 90°



Guided Practice

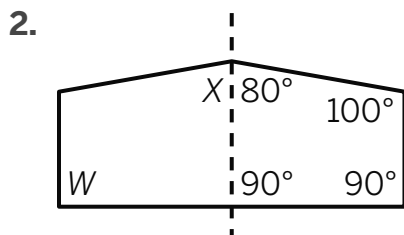


Use the dashed line of symmetry to determine the missing angle measurements.



angle *A*: 110°

angle *B*: _____



angle *W*: _____

angle *X*: _____

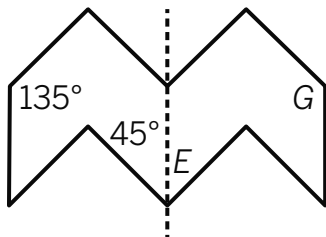


Guided Practice



Use the dashed line of symmetry to determine the missing angle measurements.

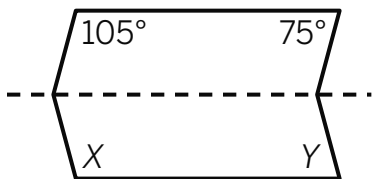
3.



angle E : _____

angle G : _____

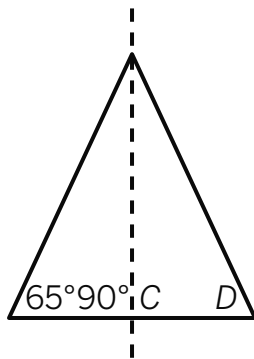
4.



angle X : _____

angle Y : _____

5.



angle C : _____

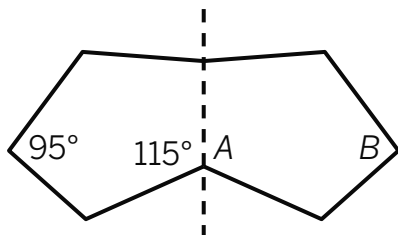
angle D : _____



Check



The dashed line represents a line of symmetry for the figure. Determine the measurements of angles A and B .



angle A : _____

angle B : _____

**Prerequisite Skills
and Concepts**

Mini-Lessons

Adding Tens and Hundreds to Three-Digit Numbers

ML 7.02



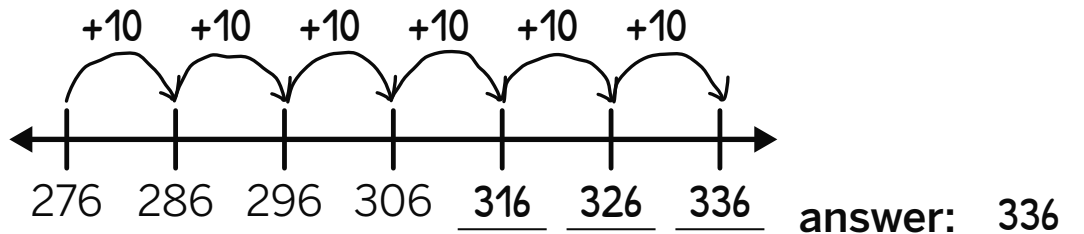
Modeled Review



Name: Maya

Fill in the missing numbers. Then find the sum.

$276 + 60$

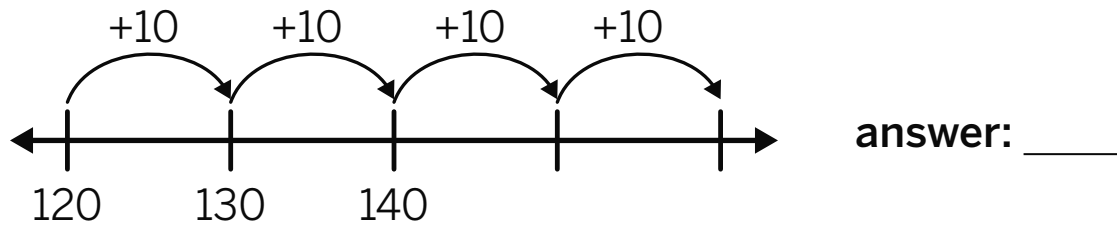


Guided Practice

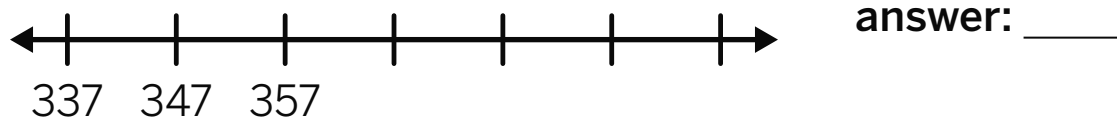


For Problems 1–2, fill in the missing numbers. Then find the sum.

1. $120 + 40$



2. $337 + 60$



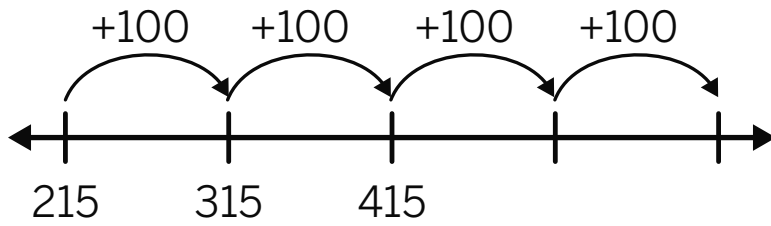


Guided Practice



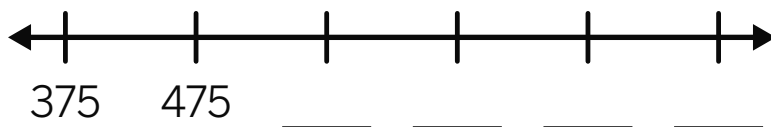
For Problems 3–4, fill in the missing numbers. Then find the sum.

3. $215 + 400$



answer: _____

4. $375 + 500$



answer: _____

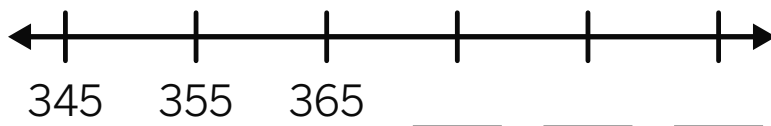


Check



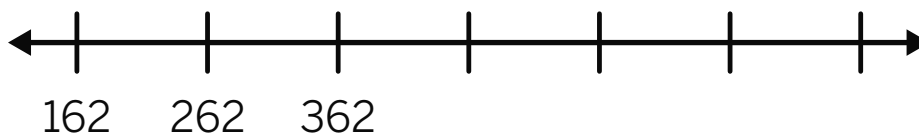
Fill in the missing numbers. Then find the sum.

1. $345 + 50$



answer: _____

2. $162 + 600$



answer: _____

Writing Expressions That Represent Equal-Groups Drawings and Situations

ML 1.03



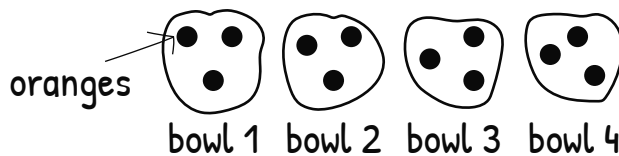
Modeled Review



Name: Han

Write a multiplication expression to represent the situation or drawing.

There are 4 bowls. Each bowl has 3 oranges.





expression: 4 × 3



Guided Practice



- Write a multiplication expression to represent the situation or drawing.

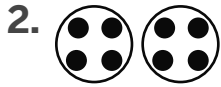
Situation or drawing	Expression
	2×3
There are 3 boxes. Each box has 6 crayons.	$3 \times \underline{\quad}$
	$\underline{\quad} \times \underline{\quad}$



Guided Practice



Write a multiplication expression to represent the situation or drawing.



___ groups

___ in each group

expression: 2×4



___ groups

___ in each group

expression: _____

4. There are 5 fish tanks. Each tank has 4 fish.

___ groups

___ in each group

expression: _____

5. Each bicycle has 2 wheels. There are 7 bicycles.

expression: _____



Check



Write a multiplication expression to represent the situation or drawing.

1. There are 3 tables. Each table has 8 people.

expression: _____



expression: _____

Multiplication Fluency (Factors of 2, 5, and 10)

ML 1.07

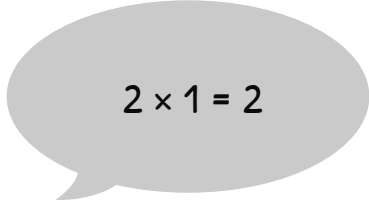


Modeled Review



Name: Avery

Use 2s facts to complete the multiplication chart.



(x)	(1)	2	3	4
1	↓	2		
(2) →	2	4	6	8
3		6		
4		8		



Guided Practice



1. Use 2s facts to complete the multiplication chart.

x	1	2	3	4	5	6	7	8	9	10
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										



Guided Practice



2. Use 5s and 10s facts to complete the multiplication chart.

\times	1	2	3	4	5	6	7	8	9	10
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										



Check



Determine the product.

1. $2 \times 6 = \underline{\quad}$

2. $5 \times 4 = \underline{\quad}$

3. $10 \times 3 = \underline{\quad}$

4. $5 \times 7 = \underline{\quad}$

5. $10 \times 9 = \underline{\quad}$

6. $2 \times 8 = \underline{\quad}$

Finding Area by Counting Unit Squares

ML 2.05

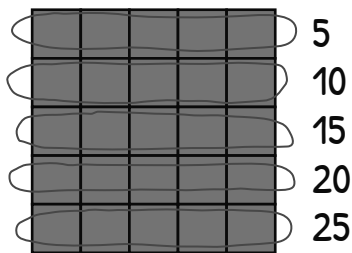


Modeled Review



Name: Eva

Determine the area of the rectangle. Show or explain your thinking.



There are 5 rows of 5, so I skip counted by 5.

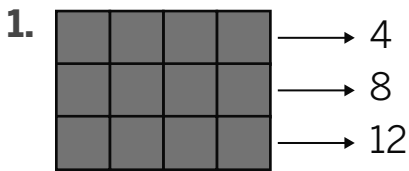
answer: 25 square units



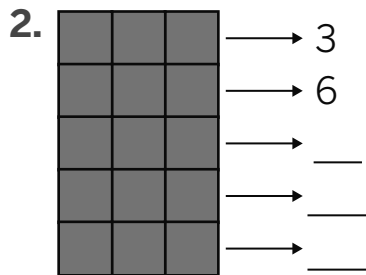
Guided Practice



Determine the area of the rectangle.



area: _____ square units



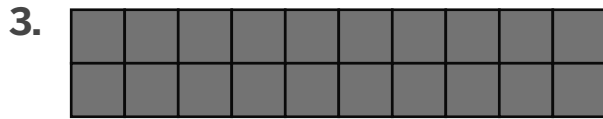
area: _____



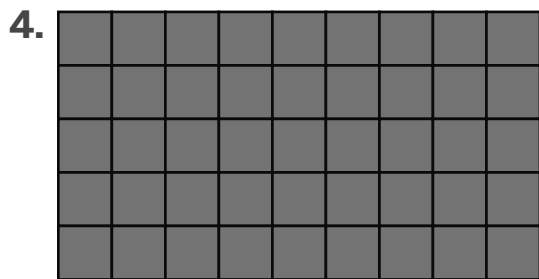
Guided Practice



Determine the area of the rectangle. Show or explain your thinking.



answer: _____



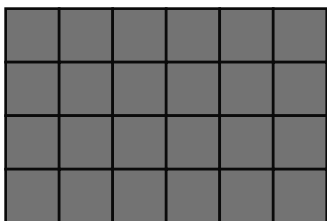
answer: _____



Check



Determine the area of the rectangle. Show or explain your thinking.



answer: _____

Adding With the Standard Algorithm

ML 3.06



Modeled Review



Name: Dylan

Calculate the sum.

$$382 + 491 = \underline{873}$$

$$\begin{array}{r} 382 \\ + 491 \\ \hline 3 \\ 170 \\ + 700 \\ \hline 873 \end{array}$$

Name: Jada

Calculate the sum.

$$382 + 491 = \underline{873}$$

$$\begin{array}{r} 1 \\ 382 \\ + 491 \\ \hline 873 \end{array}$$


Guided Practice



Calculate each sum using partial sums and the standard algorithm.

1. $136 + 263 = \underline{\hspace{2cm}}$

$$\begin{array}{r} 136 \\ + 263 \\ \hline 9 \\ \\ \\ \\ \hline \\ \\ \end{array}$$

$$\begin{array}{r} 136 \\ + 263 \\ \hline 9 \\ \end{array}$$

2. $524 + 381 = \underline{\hspace{2cm}}$

$$\begin{array}{r} 524 \\ + 381 \\ \hline \\ \\ \\ \hline \\ \\ \end{array}$$

$$\begin{array}{r} \\ 524 \\ + 381 \\ \hline 5 \end{array}$$



Guided Practice



Calculate the sum. Show or explain your thinking.

3. $192 + 114 =$ _____

4. $304 + 258 =$ _____

+ _____

5. $129 + 207 =$ _____

6. $490 + 115 =$ _____



Check



Calculate the sum. Show or explain your thinking.

$459 + 260 =$ _____

Subtracting Within 1,000 Using an Algorithm

ML 3.12



Modeled Review

Name: Han

Find the difference.

$$425 - 267 = \underline{158}$$

$$\begin{array}{r} 300 \quad 110 \\ \quad \quad \cancel{10} \quad 15 \\ 400 + \cancel{20} + \cancel{5} \\ - 200 + 60 + 7 \\ \hline 100 + 50 + 8 \end{array}$$

Name: Clare

Find the difference.

$$425 - 267 = \underline{158}$$

$$\begin{array}{r} 311 \\ \quad \quad \cancel{1} \quad 15 \\ \quad \quad \cancel{4} \quad 25 \\ - 267 \\ \hline 158 \end{array}$$



Guided Practice



Calculate the difference using an algorithm of your choice.

1. $547 - 200 = \underline{\hspace{2cm}}$

2. $462 - 340 = \underline{\hspace{2cm}}$

3. $345 - 123 = \underline{\hspace{2cm}}$

4. $762 - 146 = \underline{\hspace{2cm}}$



Guided Practice



Calculate the difference using an algorithm of your choice.

5. $684 - 329 =$ _____

6. $519 - 284 =$ _____

7. $732 - 418 =$ _____

8. $876 - 459 =$ _____



Check



Calculate the difference using an algorithm of your choice.

1. $746 - 317 =$ _____

2. $526 - 445 =$ _____

Subtracting Across Zeros

ML 3.13



Modeled Review

Name: Santiago

Calculate the difference using expanded form. Show or explain your thinking.

$$302 - 154 = \underline{\quad 148 \quad}$$

$$\begin{array}{r} 200 \quad 90 \quad 12 \\ 300 + \cancel{0} + \cancel{2} \\ - 100 + 50 + 4 \\ \hline 100 + 40 + 8 \end{array}$$



Guided Practice



Calculate the difference using expanded form.

1. $502 - 165 = \underline{\quad}$

2. $320 - 172 = \underline{\quad}$

$$\begin{array}{r} \boxed{} \quad 90 \quad 12 \\ 500 + \cancel{0} + \cancel{2} \\ - 100 + 60 + 5 \\ \hline \boxed{} + \boxed{} + \boxed{} = \boxed{} \end{array}$$

$$\begin{array}{r} \boxed{} \quad \boxed{} \quad 10 \quad 10 \\ 300 + \cancel{20} + \cancel{0} \\ - 100 + 70 + 2 \\ \hline \boxed{} + \boxed{} + \boxed{} = \boxed{} \end{array}$$



Guided Practice



Calculate the difference using expanded form.

3. $406 - 278 = \underline{\hspace{2cm}}$

4. $870 - 356 = \underline{\hspace{2cm}}$

<input type="text"/>	+	<input type="text"/>	+	<input type="text"/>
----------------------	---	----------------------	---	----------------------

$400 + 0 + 6$

$- 200 + 70 + 8$

<input type="text"/>	+	<input type="text"/>	+	<input type="text"/>	=	<input type="text"/>
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5. $303 - 156 = \underline{\hspace{2cm}}$

6. $600 - 217 = \underline{\hspace{2cm}}$



Check



Calculate the difference using expanded form.

1. $750 - 322 = \underline{\hspace{2cm}}$

2. $408 - 219 = \underline{\hspace{2cm}}$

Rounding to the Nearest Ten or Hundred to Estimate

ML 3.17



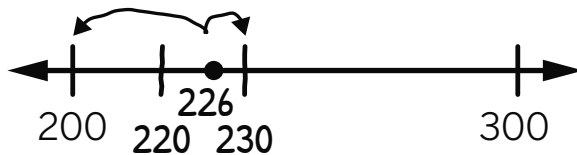
Modeled Review



Name: Maya

1. Round 226 to the nearest ten. 230

2. Round 226 to the nearest hundred. 200



Guided Practice



1. Complete the table by rounding to the nearest ten and hundred.

Number	Number line	Nearest ten	Nearest hundred
224			
559			
77			
313			



Guided Practice



2. Complete the table by rounding to the nearest ten and hundred.

Number	Nearest ten	Nearest hundred
216		
94		
350		
39		
11		
429		
60		
165		
501		



Check



Complete the table by rounding to the nearest ten and hundred.

Number	Nearest ten	Nearest hundred
168		
321		

Representing Situations With Multiplication and Division Equations

ML 4.06



Modeled Review

Name: Han

Write a multiplication equation and a division equation for the situation. Use a letter to represent the unknown value.

Santiago picked 20 mini tomatoes from his garden to put in salads. He put 5 tomatoes in each salad.

multiplication equation: $s \times 5 = 20$

division equation: $20 \div 5 = s$



Guided Practice



Complete the multiplication equation and division equation for each situation. Use a letter to represent the unknown value.

Situation	Multiplication equation	Division equation
Dylan plants 12 zucchini plants. He splits them between 4 pots.	$4 \times z = 12$	$12 \div 4 = \underline{\quad}$
Clare plants 18 pepper seeds. She puts 6 seeds in each row.	$r \times \underline{\quad} = 18$	$18 \div 6 = \underline{\quad}$
Eva picked 21 carrots. She splits them between 3 bowls.	$\underline{\quad} \times \underline{\quad} = 21$	$21 \div \underline{\quad} = \underline{\quad}$
Tristan plants 24 lilies. He puts 4 in each row.	$\underline{\quad} \times \underline{\quad} = \underline{\quad}$	$\underline{\quad} \div \underline{\quad} = \underline{\quad}$



Guided Practice



Write a multiplication equation and a division equation for each situation. Use a letter to represent the unknown value.

Situation	Multiplication equation	Division equation
Jack has 28 sunflower seeds. He puts 7 seeds in each row.		
Priya picked 54 cucumbers. She puts 9 in each bag.		
Avery picked 36 daisies. She split them equally between 6 bouquets.		
Maya planted 35 pumpkin seeds. She put 7 in each row.		



Check



Write a multiplication equation and a division equation for the situation. Use a letter to represent the unknown value.

Jada has 21 tulip bulbs to plant in 3 equal rows in her garden.

multiplication equation: _____

division equation: _____

Multiplying a One-Digit Number by Multiples of Ten

ML 4.11



Modeled Review

Name: Dylan

Calculate the product.

$$8 \times 30 = \underline{240}$$

$$8 \times 3 \times 10$$

$$8 \times 3 = 24$$

$$24 \times 10 = 240$$



Guided Practice



Calculate the product.

1. $3 \times 40 = 3 \times 4 \times 10 = 12 \times 10 = \underline{\quad}$

2. $6 \times 60 = 6 \times 6 \times 10 = \underline{\quad} \times 10 = \underline{\quad}$

3. $5 \times 70 = 5 \times \underline{\quad} \times 10 = \underline{\quad} \times 10 = \underline{\quad}$

4. $4 \times 50 = \underline{\quad} \times \underline{\quad} \times 10 = \underline{\quad} \times 10 = \underline{\quad}$

5. $7 \times 30 = \underline{\quad} \times \underline{\quad} \times \underline{\quad} = \underline{\quad} \times \underline{\quad} = \underline{\quad}$



Guided Practice



Calculate the product.

6. $4 \times 30 =$ _____

7. $3 \times 90 =$ _____

8. $5 \times 50 =$ _____

9. $6 \times 40 =$ _____

10. $4 \times 80 =$ _____



Check



Calculate the product.

$9 \times 40 =$ _____

Multiplying a One-Digit Number by a Teen Number

ML 4.12



Modeled Review

Name: Clare

Calculate the product of 4×16 . Show your thinking.

	10	6
4	$4 \times 10 = 40$	$4 \times 6 = 24$
	$40 + 24 = 64$	

answer: 64



Guided Practice



Calculate the product. Show your thinking.

1. 5×13

	10	3	
5	$5 \times 10 = \underline{\quad}$	$5 \times 3 = \underline{\quad}$	$50 + 15 = \underline{\quad}$

2. 4×14

	10	4	
4	$4 \times \underline{\quad} = \underline{\quad}$	$4 \times \underline{\quad} = \underline{\quad}$	$40 + \underline{\quad} = \underline{\quad}$



Guided Practice



Calculate the product. Show your thinking.

3. 7×13

	10	_____
7	$7 \times 10 = \underline{\quad}$	$7 \times 3 = \underline{\quad}$

_____ \times 10 + 7 \times _____

_____ + _____ = _____

4. 5×17

	_____	_____
5		

$5 \times$ _____ + _____ \times _____

_____ + _____ = _____

5. 4×17

6. 3×18

answer: _____

answer: _____



Check



Calculate the product of 6×16 . Show your thinking.

answer: _____

Solving Multiplication Problems Involving Teen Numbers

ML 4.13

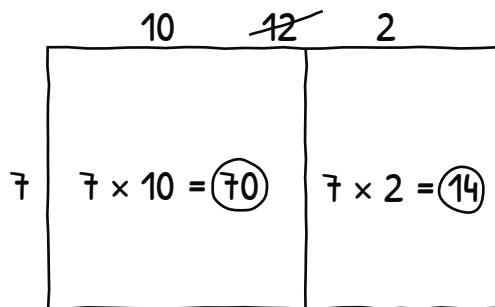


Modeled Review

Name: Eva

Clare is buying a rug for her room. The rug is 7 feet by 12 feet.
What is the area of the rug?

$$7 \times 12$$



$$7 \times 10 + 7 \times 2 = 70 + 14$$

$$70 + 14 = 84$$

answer: 84 sq. feet

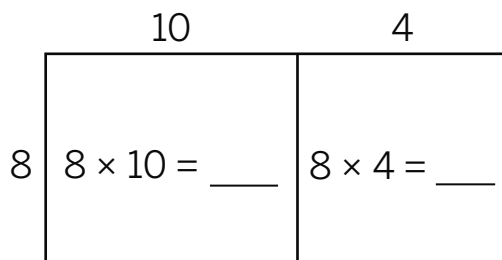


Guided Practice



Calculate the product. Show your thinking.

- Clare is remodeling her bedroom. The floor measures 8 feet by 14 feet. What is the area of her bedroom floor?



$$8 \times 10 + 8 \times 4 = \underline{\quad} + \underline{\quad}$$

$$\underline{\quad} + \underline{\quad} = \underline{\quad}$$

answer: _____

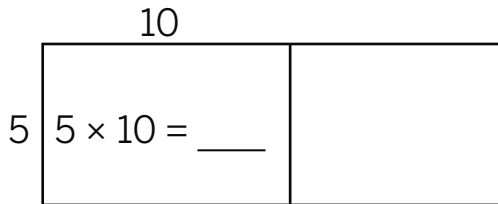


Guided Practice



Calculate the product. Show your thinking.

2. Clare found a large poster that she wants to put on her wall. It measures 5 feet by 12 feet. What is the area of the poster?



$$\underline{\quad} + \underline{\quad} = \underline{\quad}$$

answer: _____

3. Clare wants to install a garden in her backyard. It measures 4 feet by 16 feet. What is the area of the garden?

answer: _____



Check



Calculate the product. Show your thinking.

Clare is helping her parents redesign the living room. The floor measures 7 feet by 14 feet. What is the area of the living room floor?

answer: _____

Dividing a Two-Digit by a One-Digit Number

ML 4.17

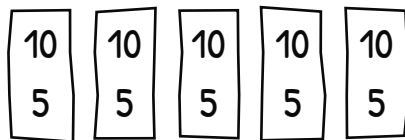


Modeled Review

Name: Diego

Calculate the quotient. Show your thinking.

$$75 \div 5 = \underline{15}$$



$$10 + 5 = 15$$

$$? \times 5 = 75$$

$$5 \times 10 = 50$$

$$5 \times 5 = 25$$

$$5 \times 15 = 75$$



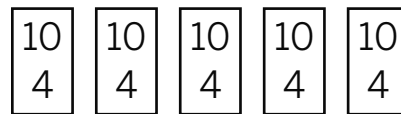
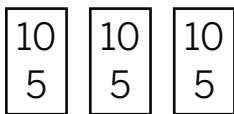
Guided Practice



Calculate the quotient. Show your thinking.

1. $45 \div 3 = \underline{\quad}$

2. $70 \div 5 = \underline{\quad}$



$$3 \times 10 = \underline{\quad}$$

$$5 \times \underline{\quad} = \underline{\quad}$$

$$3 \times 5 = \underline{\quad}$$

$$5 \times \underline{\quad} = \underline{\quad}$$

$$\underline{\quad} + \underline{\quad} = \underline{\quad}$$

$$\underline{\quad} + \underline{\quad} = \underline{\quad}$$



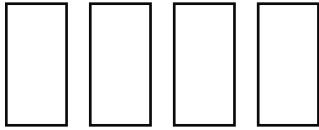
Guided Practice



Calculate the quotient. Show your thinking.

3. $52 \div 4 = \underline{\quad}$

4. $39 \div 3 = \underline{\quad}$



$\underline{\quad} \times \underline{\quad} = \underline{\quad}$

$\underline{\quad} \times \underline{\quad} = \underline{\quad}$

$\underline{\quad} \times \underline{\quad} = \underline{\quad}$

$\underline{\quad} \times \underline{\quad} = \underline{\quad}$

$\underline{\quad} \times \underline{\quad} = \underline{\quad}$

$\underline{\quad} \times \underline{\quad} = \underline{\quad}$

5. $90 \div 6 = \underline{\quad}$

6. $60 \div 5 = \underline{\quad}$



Check



Calculate the quotient. Show your thinking.

$72 \div 6 = \underline{\quad}$

Dividing by Decomposing a Dividend

ML 4.18

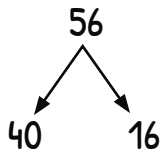


Modeled Review

Name: Jack

Calculate the quotient by decomposing the dividend.
Show your thinking.

$$56 \div 4 = \underline{14}$$



$$40 \div 4 = \textcircled{10}$$

$$16 \div 4 = \textcircled{4}$$

$$10 + 4 = 14$$

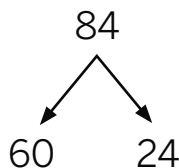


Guided Practice



Calculate the quotient by completing the equations.

1. $84 \div 6 = \underline{\quad}$

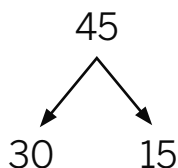


$$60 \div 6 = 10$$

$$24 \div 6 = \underline{\quad}$$

$$\underline{\quad} + \underline{\quad} = \underline{\quad}$$

2. $45 \div 3 = \underline{\quad}$



$$30 \div 3 = \underline{\quad}$$

$$15 \div \underline{\quad} = 5$$

$$\underline{\quad} + \underline{\quad} = \underline{\quad}$$



Guided Practice



Calculate the quotient by decomposing the dividend. Show your thinking.

3. $72 \div 6 = \underline{\quad}$



$$\underline{\quad} \div \underline{\quad} = \underline{\quad}$$

$$\underline{\quad} \div \underline{\quad} = \underline{\quad}$$

$$\underline{\quad} + \underline{\quad} = \underline{\quad}$$

4. $42 \div 3 = \underline{\quad}$

5. $48 \div 4 = \underline{\quad}$



Check



Calculate the quotient by decomposing the dividend. Show your thinking.

$52 \div 4 = \underline{\quad}$

Partitioning a Whole Into Equal Parts

ML 5.02



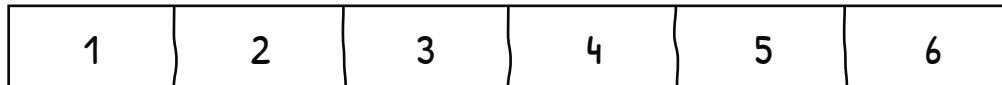
Modeled Review

Name: Jada

1. Partition the whole to represent fourths.



2. Partition the whole to represent sixths.



Guided Practice



Partition each rectangle into the given fraction. Then fill in the missing information.

1. Partition the whole into thirds.



- ___ equal parts
- 3 thirds in the whole
- Each part is one third

2. Partition the whole into sixths.



- 6 equal parts
- ___ sixths in the whole
- Each part is one _____



Guided Practice



Partition each rectangle into the given fraction. Then fill in the missing information.

3. Partition the whole into halves.



- ___ equal parts
- ___ halves in the whole
- Each part is one _____

4. Partition the whole into fourths.



- ___ equal parts
- ___ fourths in the whole
- Each part is one _____

5. Partition the whole into eighths.



- ___ equal parts
- ___ eighths in the whole
- Each part is one _____



Check



Partition each rectangle into the given fraction.

1. Partition the whole to represent thirds.



2. Partition the whole to represent fourths.



Identifying Non-Unit Fractions

ML 5.04

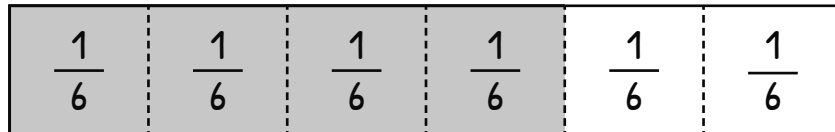


Modeled Review



Name: Dylan

The rectangle represents one whole. What fraction of the rectangle is shaded? Explain your thinking.



answer: $\frac{4}{6}$

4 parts are shaded.



Guided Practice



- Use the diagrams to complete the table. Each rectangle represents one whole.

Diagram	Unit fraction	Number of shaded parts	Fraction that is shaded
			$\frac{2}{4}$
	$\frac{1}{4}$		$\frac{7}{4}$



Guided Practice



2. Use the diagrams to complete the table. Each rectangle represents one whole.

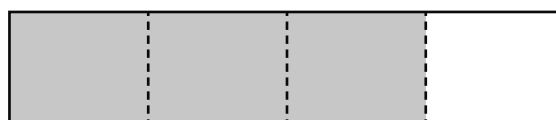
Diagram	Unit fraction	Number of shaded parts	Fraction that is shaded
	$\frac{1}{8}$		



Check



The rectangle represents one whole. What fraction of the rectangle is shaded? Explain your thinking.



answer: _____

Representing Non-Unit Fractions

ML 5.05



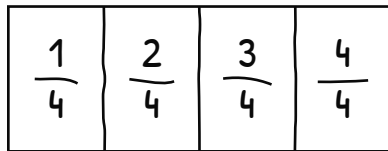
Modeled Review



Name: Maya

Each rectangle represents one whole.

Use the diagram to represent $\frac{5}{4}$.



Guided Practice



- Identify the unit fraction. Then represent each non-unit fraction on the diagram. Each rectangle represents one whole.

Diagram	Unit fraction	Fraction that is shaded
	$\frac{1}{2}$	$\frac{3}{2}$
		$\frac{2}{6}$
		$\frac{4}{3}$
		$\frac{4}{8}$



Guided Practice



2. Identify the unit fraction. Then represent each non-unit fraction on the diagram. Each rectangle represents one whole.

Diagram		Unit fraction	Fraction that is shaded
			$\frac{6}{4}$
			$\frac{2}{2}$
			$\frac{2}{3}$
			$\frac{7}{4}$
			$\frac{8}{6}$



Check



Each rectangle represents one whole.

Use the diagram to represent $\frac{5}{3}$.



Locating Unit Fractions on a Number Line

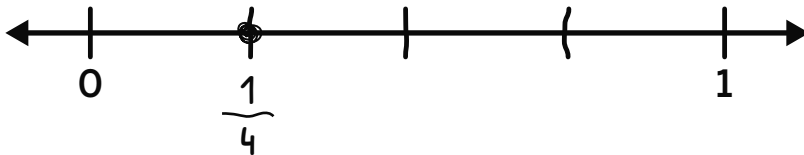
ML 5.06



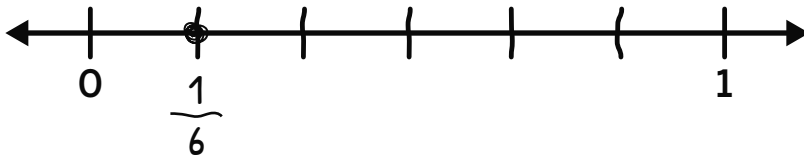
Modeled Review

Name: Clare

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



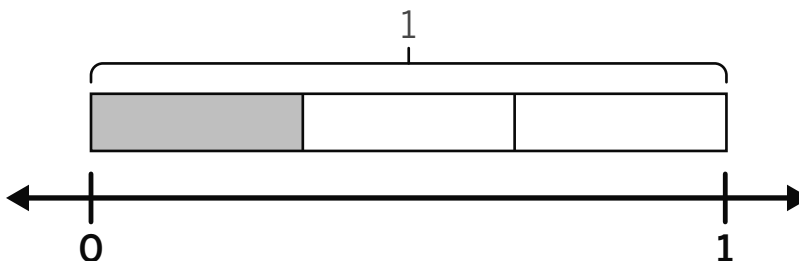
2. Locate and label $\frac{1}{6}$ on the number line.



Guided Practice



1. Locate and label $\frac{1}{3}$ on the number line.



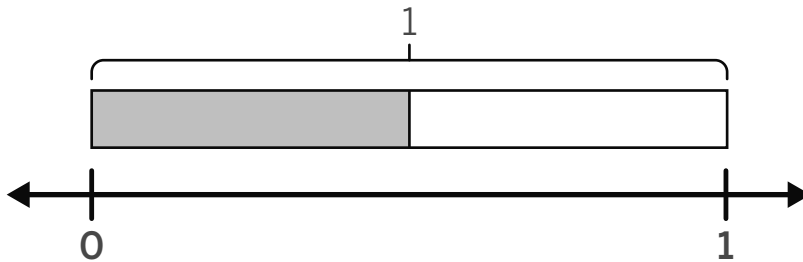


Guided Practice



Locate and label each unit fraction on the number line.

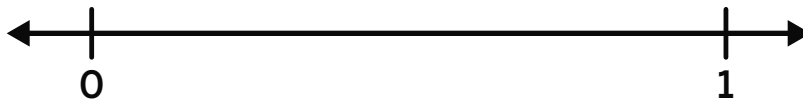
2. $\frac{1}{2}$



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



4. $\frac{1}{8}$

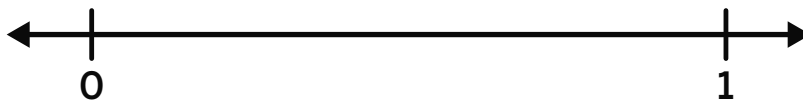


Check



Locate and label each unit fraction on the number line.

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



2. $\frac{1}{6}$



Locating Non-Unit Fractions on a Number Line

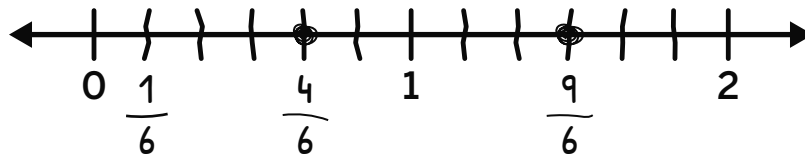
ML 5.07



Modeled Review

Name: Tristan

Locate and label $\frac{4}{6}$ and $\frac{9}{6}$ on the number line.

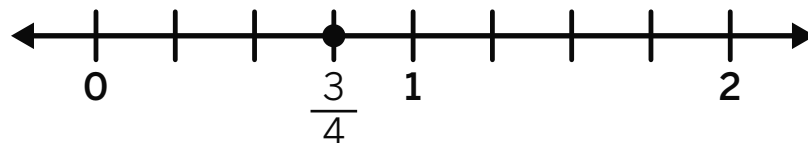


Guided Practice

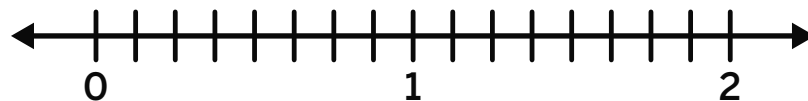


Locate and label each fraction on the number line.

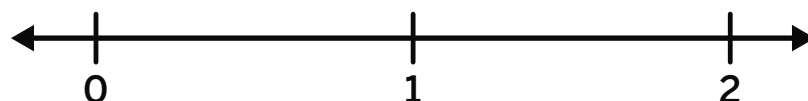
1. $\frac{3}{4}$ and $\frac{7}{4}$



2. $\frac{4}{8}$ and $\frac{10}{8}$



3. $\frac{1}{2}$ and $\frac{3}{2}$



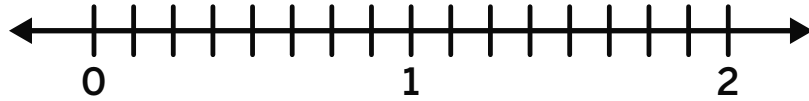


Guided Practice

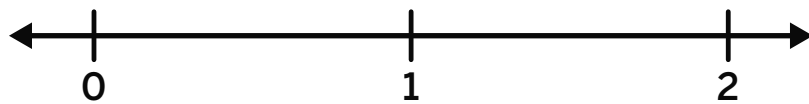


Locate and label each fraction on the number line.

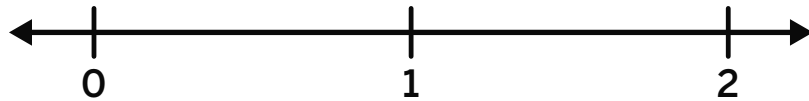
4. $\frac{2}{8}$ and $\frac{15}{8}$



5. $\frac{2}{3}$ and $\frac{5}{3}$



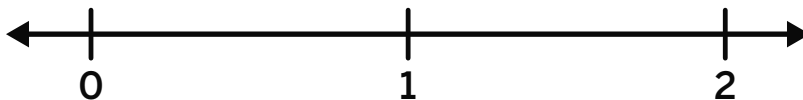
6. $\frac{3}{6}$ and $\frac{7}{6}$



Check



Locate and label $\frac{2}{4}$ and $\frac{5}{4}$ on the number line.



Identifying Equivalent Fractions

ML 5.10

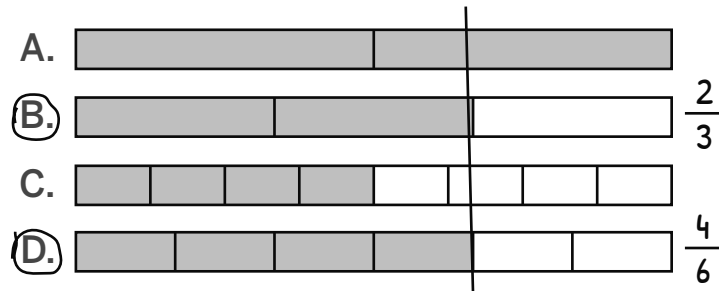


Modeled Review



Name: Diego

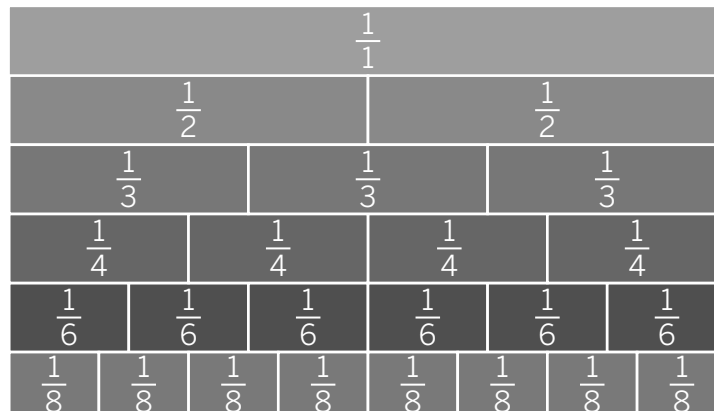
Each rectangle represents one whole. Select the two rectangles in which the total shaded areas represent equivalent fractions.



Guided Practice



Use the diagram to identify all of the equivalent fractions.



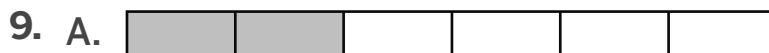
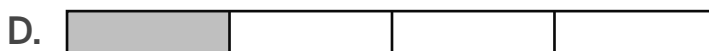
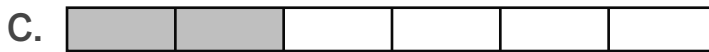
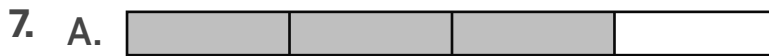
1. 1 is equivalent to $\frac{2}{2}$, $\frac{3}{3}$, _____, _____, _____
2. $\frac{1}{2}$ is equivalent to _____
3. $\frac{1}{3}$ is equivalent to _____
4. $\frac{1}{4}$ is equivalent to _____
5. $\frac{4}{6}$ is equivalent to _____
6. $\frac{3}{4}$ is equivalent to _____



Guided Practice



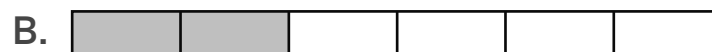
Each rectangle represents one whole. Select the *two* rectangles in which the total shaded areas represent equivalent fractions.



Check



Each rectangle represents one whole. Select the *two* rectangles in which the total shaded areas represent equivalent fractions.



Writing Equivalent Fractions

ML 5.11

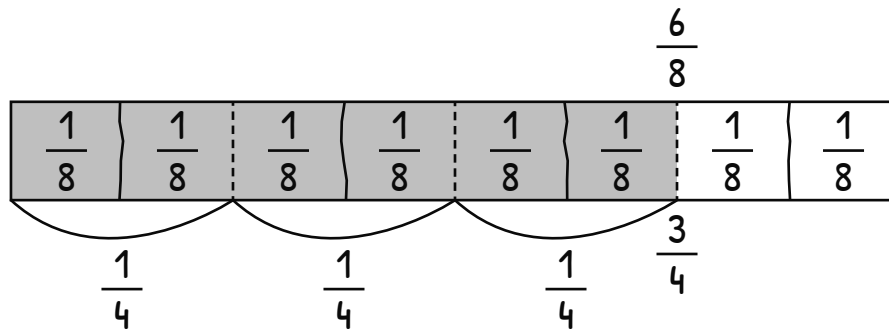


Modeled Review



Name: Priya

The rectangle represents one whole. Write *two* different fractions to represent the total shaded area of the diagram.



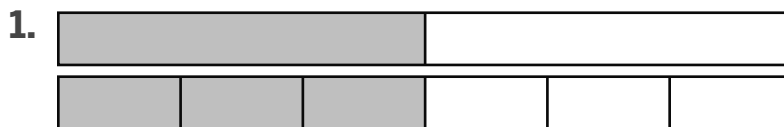
equivalent fractions: $\frac{3}{4}$ and $\frac{6}{8}$



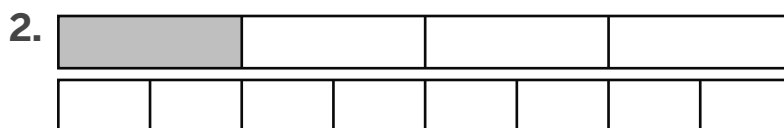
Guided Practice



Each rectangle represents one whole. Find the equivalent fractions by shading the diagrams.



equivalent fractions: $\frac{1}{2}$ and _____



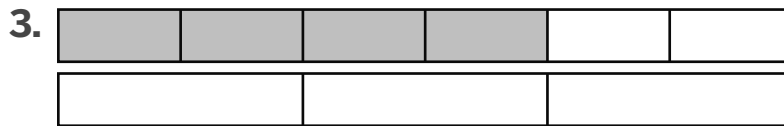
equivalent fractions: _____ and _____



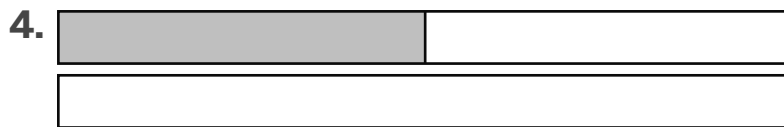
Guided Practice



Each rectangle represents one whole. Find the equivalent fractions by partitioning and shading the diagrams.

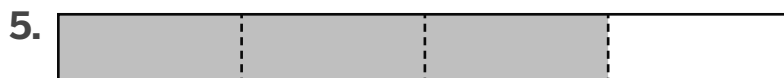


equivalent fractions: ___ and ___



equivalent fractions: ___ and ___

The rectangle represents one whole. Write *two* different fractions to represent the total shaded area of the diagram.



equivalent fractions: ___ and ___



Check



The rectangle represents one whole. Write *two* different fractions to represent the total shaded area of the diagram.



equivalent fractions: ___ and ___

Determining Equivalent Fractions

ML 5.12

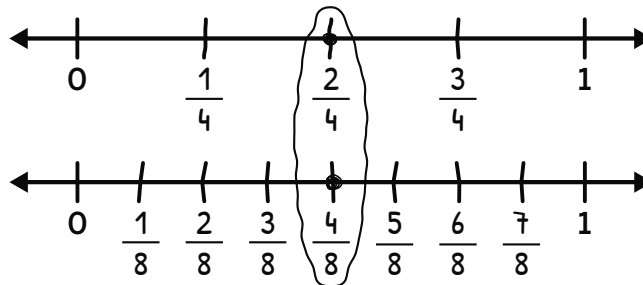


Modeled Review



Name: Han

Use the number lines to show that $\frac{2}{4}$ is equivalent to $\frac{4}{8}$.

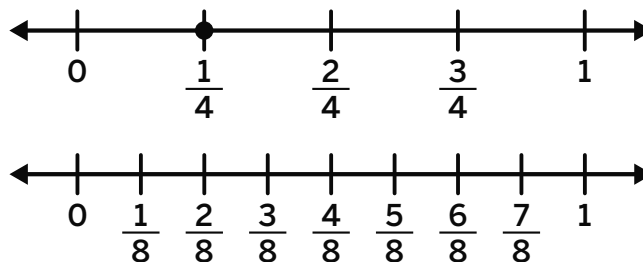


Guided Practice

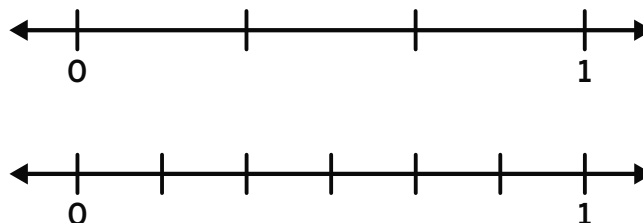


Use the number lines to find equivalent fractions.

1. equivalent fractions: $\frac{1}{4}$ and _____



2. equivalent fractions: $\frac{1}{3}$ and _____



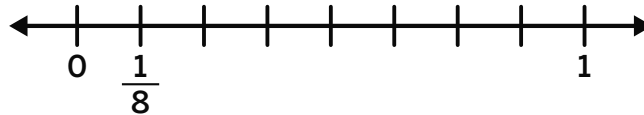
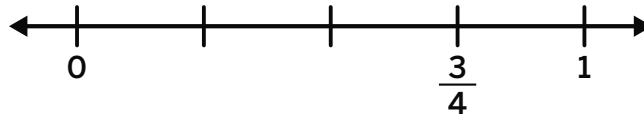


Guided Practice

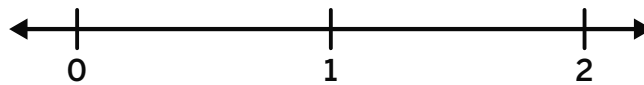
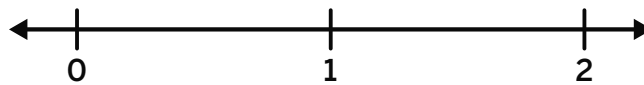


Use the number lines to find equivalent fractions.

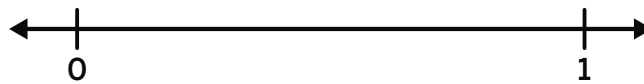
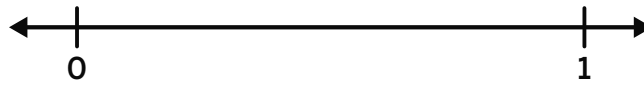
3. $\frac{3}{4} =$ _____



4. $\frac{3}{2} =$ _____



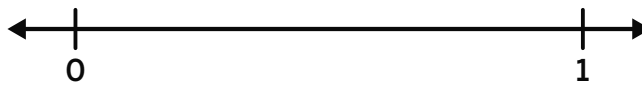
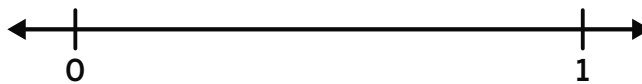
5. $\frac{2}{3} =$ _____



Check



Use the number lines to show that $\frac{1}{2}$ is equivalent to $\frac{2}{4}$.



Writing Whole Numbers as Fractions

ML 5.14



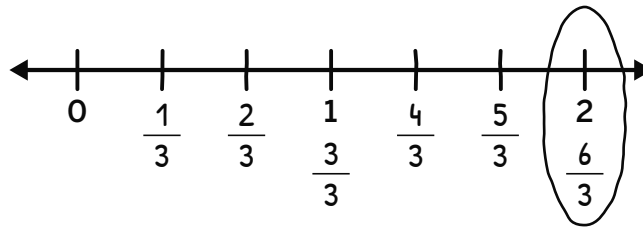
Modeled Review



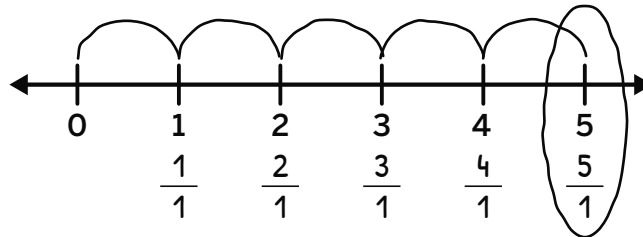
Name: Avery

Use the number lines to show the numbers are equivalent.

1. Show why $2 = \frac{6}{3}$.



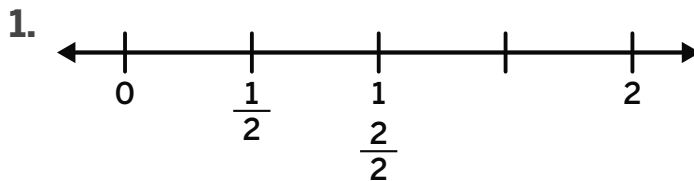
2. Show why $5 = \frac{5}{1}$.



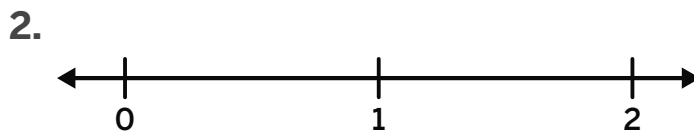
Guided Practice



Use each number line to find the equivalent fraction.



$$2 = \frac{\quad}{2}$$



$$2 = \frac{\quad}{1}$$

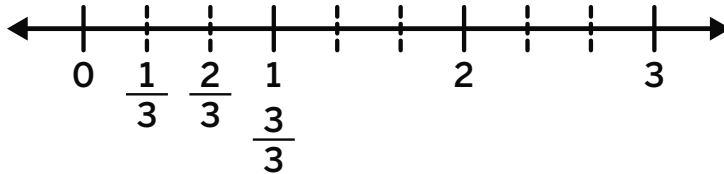


Guided Practice



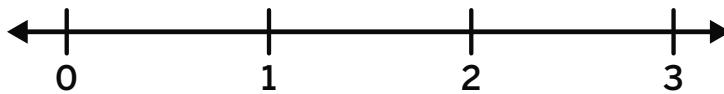
Use each number line to find the equivalent fraction.

3.



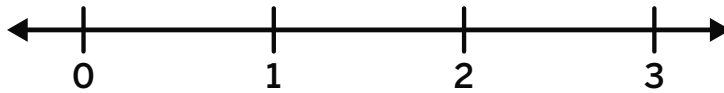
$$3 = \frac{\quad}{3}$$

4.



$$3 = \frac{\quad}{4}$$

5.



$$3 = \frac{\quad}{1}$$



Check



Express the whole number 4 as a fraction in two different ways.
Use the number lines if it is helpful.



answer: _____

Comparing Unit Fractions

ML 5.15

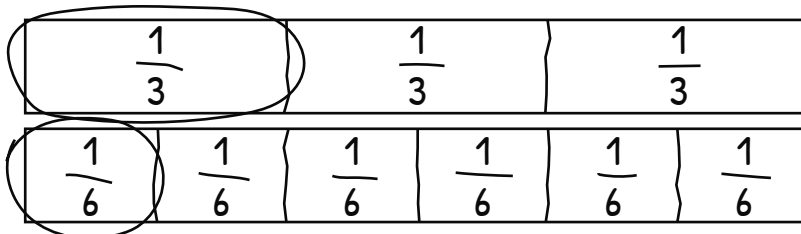


Modeled Review



Name: Maya

Each rectangle represents one whole. Which unit fraction is *greater*: $\frac{1}{6}$ or $\frac{1}{3}$? Show your thinking.



answer: $\frac{1}{3}$

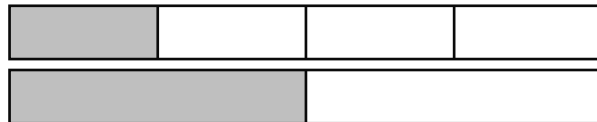


Guided Practice

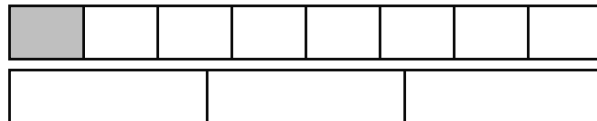


Each rectangle represents one whole. Partition and shade the fraction strips to find the *greater* fraction. Circle your answer.

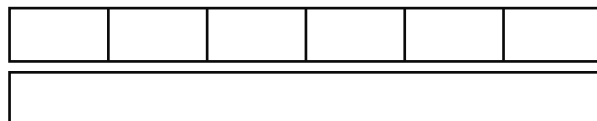
1. Which is *greater*: $\frac{1}{4}$ or $\frac{1}{2}$?



2. Which is *greater*: $\frac{1}{3}$ or $\frac{1}{8}$?



3. Which is *greater*: $\frac{1}{6}$ or $\frac{1}{2}$?



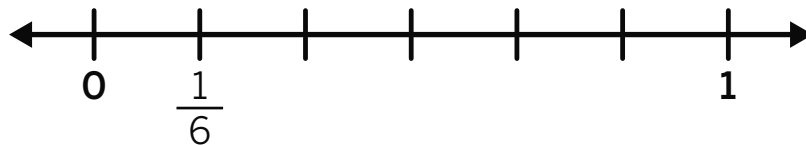
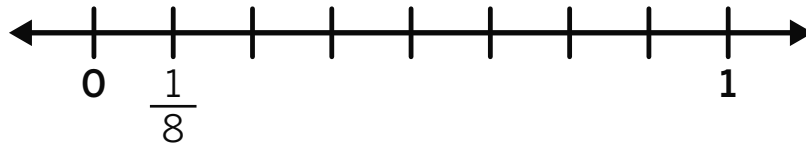


Guided Practice

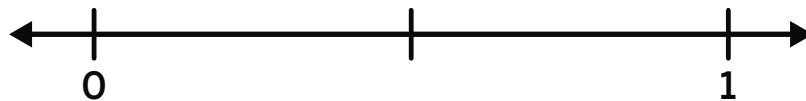
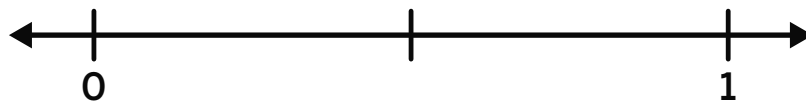


Partition and label the number lines to find the *greater* fraction.
Circle your answer.

4. Which is *greater*: $\frac{1}{8}$ or $\frac{1}{6}$?



5. Which is *greater*: $\frac{1}{4}$ or $\frac{1}{6}$?



Check



Each rectangle represents one whole. Which unit fraction is *greater*: $\frac{1}{4}$ or $\frac{1}{3}$? Show your thinking.

answer: _____

Comparing Fractions With the Same Numerator

ML 5.16



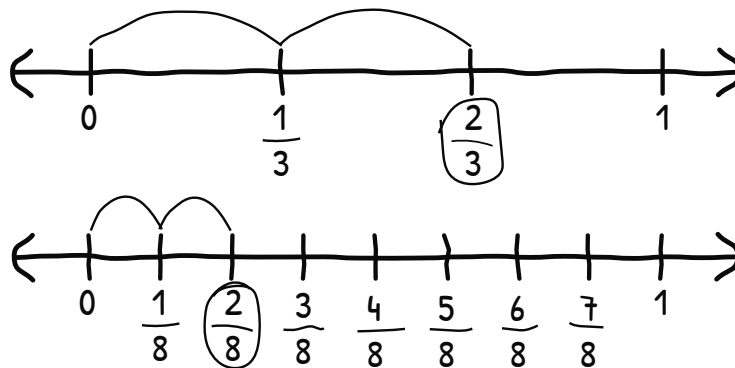
Modeled Review



Name: Jack

Complete the comparison using $<$ or $>$.

$$\frac{2}{8} \text{ — } \frac{2}{3}$$

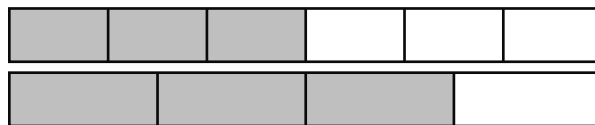


Guided Practice

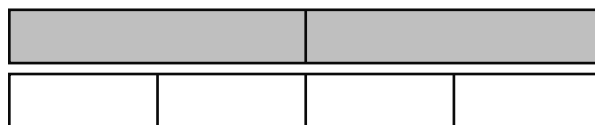


Each rectangle represents one whole. Partition and shade each diagram to represent the given fractions. Complete the comparison using $<$ or $>$.

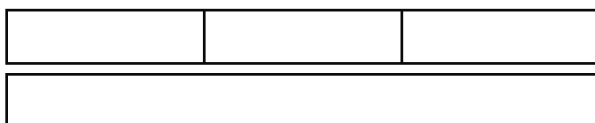
1. $\frac{3}{6}$ — $\frac{3}{4}$



2. $\frac{2}{2}$ — $\frac{2}{4}$



3. $\frac{1}{3}$ — $\frac{1}{2}$



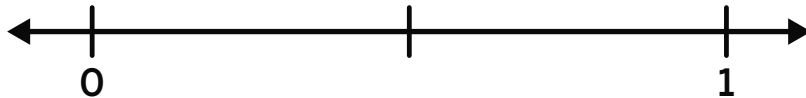
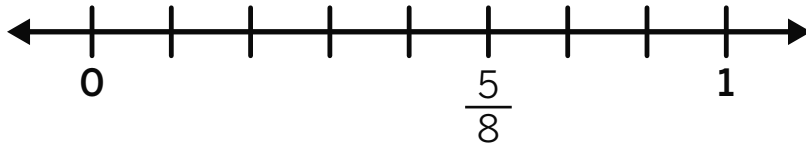


Guided Practice



Complete the comparison using $<$ or $>$.

4. $\frac{5}{8}$ — $\frac{5}{6}$



5. $\frac{3}{4}$ — $\frac{3}{8}$



Check



Complete the comparison using $<$ or $>$.

$\frac{2}{3}$ — $\frac{2}{6}$

Comparing Fractions With the Same Denominator

ML 5.17



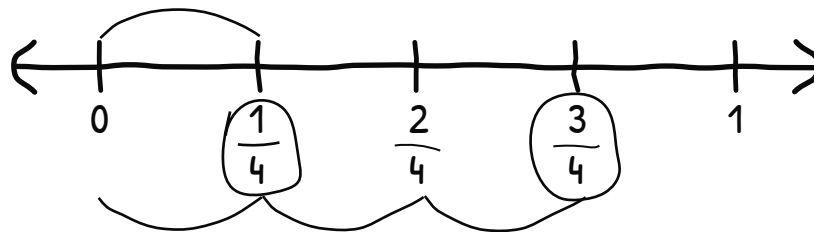
Modeled Review



Name: Jada

Complete the comparison using $<$ or $>$. Show your thinking.

$$\frac{1}{4} \text{ — } \frac{3}{4}$$



Guided Practice

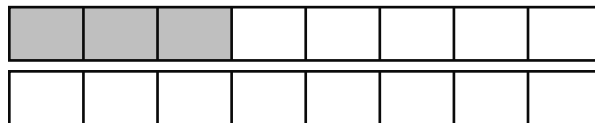


Each rectangle represents one whole. Partition and shade each diagram to represent the given fractions. Complete the comparison using $<$ or $>$.

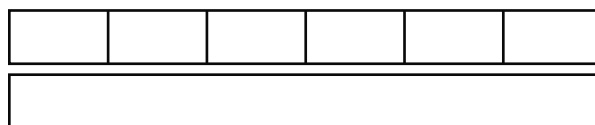
1. $\frac{3}{3}$ — $\frac{2}{3}$



2. $\frac{3}{8}$ — $\frac{7}{8}$



3. $\frac{4}{6}$ — $\frac{5}{6}$



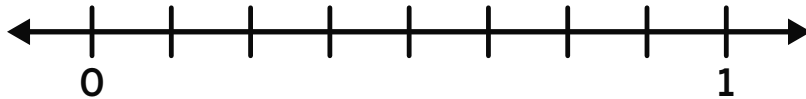


Guided Practice

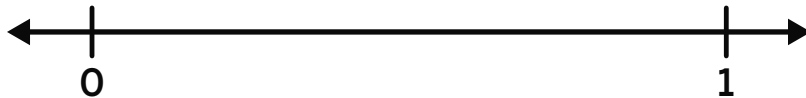


Complete the comparison using $<$ or $>$.

4. $\frac{6}{8}$ — $\frac{3}{8}$



5. $\frac{2}{4}$ — $\frac{3}{4}$



6. $\frac{2}{3}$ — $\frac{1}{3}$



Check



Complete the comparison using $<$ or $>$. Show your thinking.

$$\frac{4}{6} \text{ — } \frac{2}{6}$$

Describing and Identifying Shapes

ML 7.02

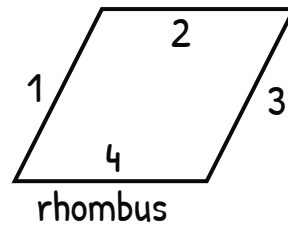
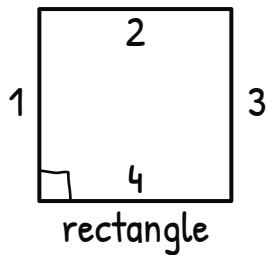


Modeled Review



Name: Jack

Select the attributes the shapes have in common.



- A. equal side lengths
- B. have four corners

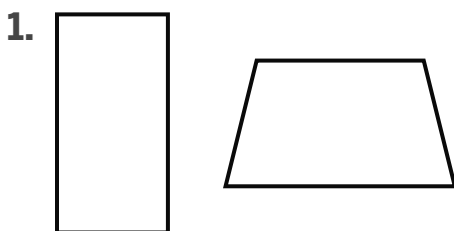
- C. are rectangles
- D. three side lengths



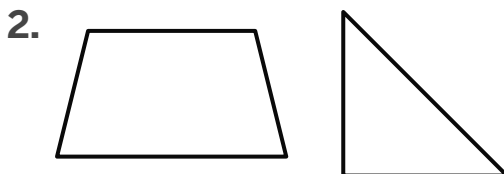
Guided Practice



Select the attribute the shapes have in common.



- A. four sides
- B. two pair of equal side lengths
- C. at least one square corner



- A. four sides
- B. one pair of equal side lengths
- C. all equal side lengths

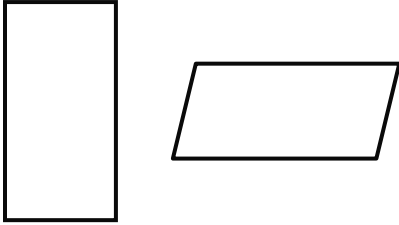


Guided Practice



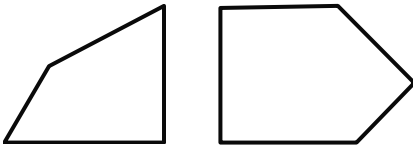
Select the two attributes the shapes have in common.

3.



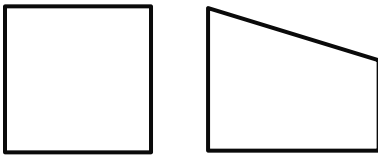
- A. four sides
- B. square corners
- C. all equal side lengths
- D. two pairs of equal sides

4.



- A. two pairs of equal sides
- B. less than six sides
- C. at least one square corner
- D. four sides

5.



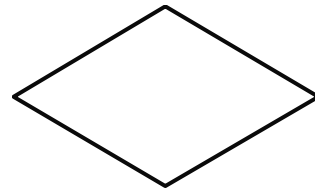
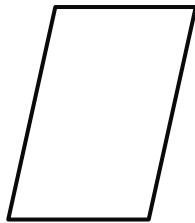
- A. all equal side lengths
- B. they are rectangles
- C. four sides
- D. at least two square corners



Check



Select the two attributes the shapes have in common.



- A. no square corners
- B. equal sides
- C. square corners
- D. four sides

Comparing and Classifying Quadrilaterals

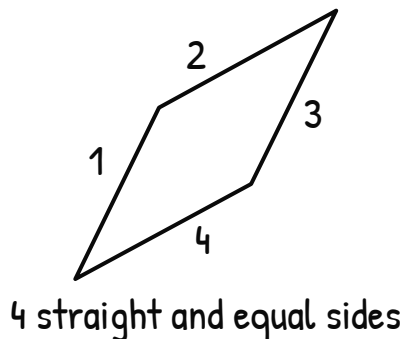
ML 7.05



Modeled Review

Name: Diego

Circle *all* the ways you could classify the shape.



- A. hexagon
- B. quadrilateral
- C. triangle
- D. rhombus
- E. rectangle
- F. square

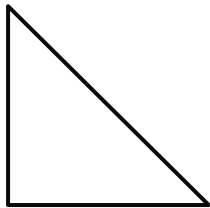


Guided Practice



Circle *all* the ways you could classify each shape.

1.



- A. square
- B. rectangle
- C. quadrilateral
- D. hexagon
- E. rhombus
- F. triangle

2.



- A. hexagon
- B. quadrilateral
- C. triangle
- D. rhombus
- E. rectangle
- F. square

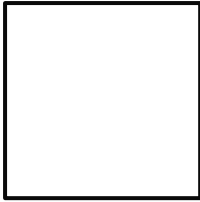


Guided Practice



Circle *all* the ways you could classify each shape.

3.



- A. hexagon
- B. quadrilateral
- C. triangle
- D. rhombus
- E. rectangle
- F. square

4.



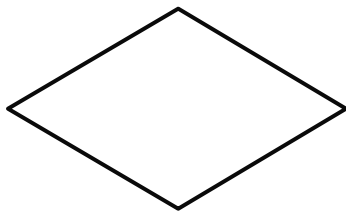
- A. square
- B. rectangle
- C. hexagon
- D. rhombus
- E. quadrilateral
- F. triangle



Check



Circle *all* the ways you could classify the shape.



- A. hexagon
- B. rectangle
- C. quadrilateral
- D. rhombus
- E. square
- F. triangle

Determining Perimeter

ML 7.06

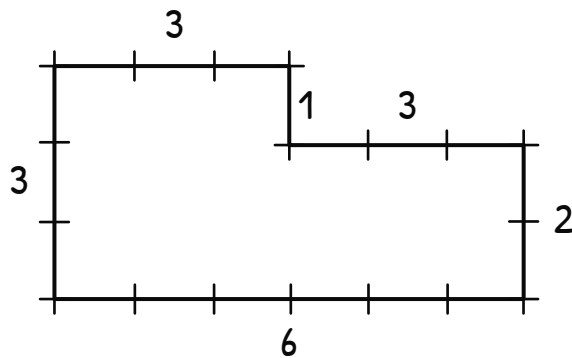


Modeled Review



Name: Priya

Determine the perimeter of the shape. The distance between two tick marks is one unit. Show your thinking.



$$3 + 3 + 1 + 3 = 10$$

$$2 + 6 = 8$$

$$10 + 8 = 18$$

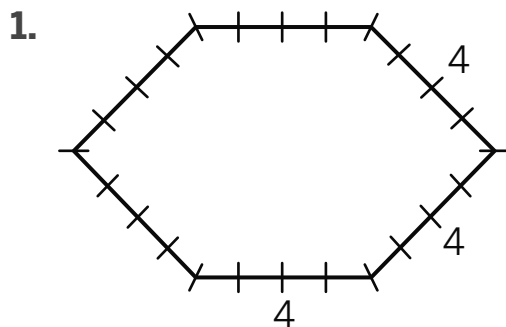
perimeter: 18 units



Guided Practice

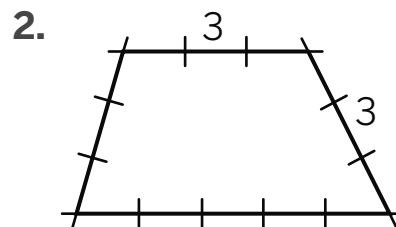


Determine the perimeter of the shape. The distance between two tick marks is one unit. Show your thinking.



$$4 + 4 + 4 + \underline{\quad} + \underline{\quad} + \underline{\quad} = \underline{\quad}$$

perimeter: units



$$3 + 3 + \underline{\quad} + \underline{\quad} = \underline{\quad}$$

perimeter: units



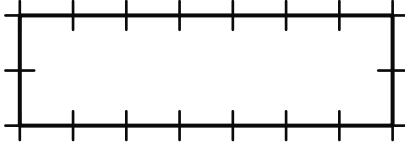
Guided Practice



Determine the perimeter of the shape. The distance between two tick marks is one unit. Show your thinking.

3.

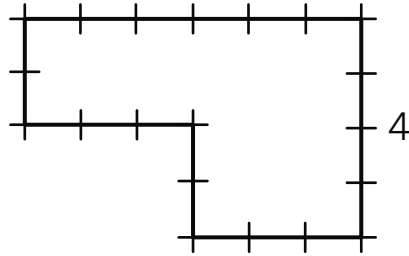
7



perimeter: _____

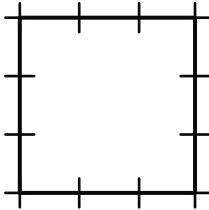
4.

6



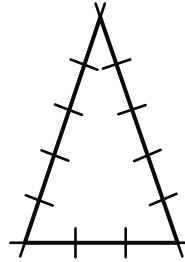
perimeter: _____

5.



perimeter: _____

6.



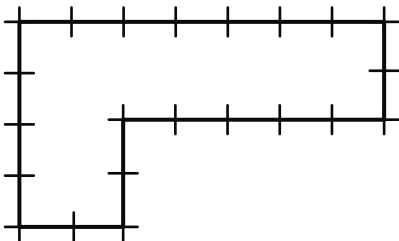
perimeter: _____



Check



Determine the perimeter of the shape. The distance between two tick marks is one unit. Show your thinking.



perimeter: _____

Solving Problems Involving Perimeter

ML 7.09



Modeled Review

Name: Tristan

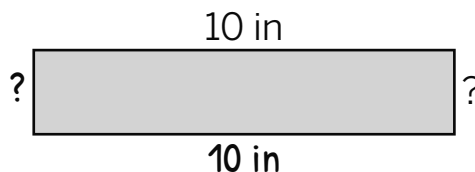
Calculate the length of the unknown side. Show your thinking.

This rectangle has a perimeter of 24 inches. One side has a length of 10 inches.

$$10 + 10 = 20$$

$$24 - 20 = 4$$

$$4 \div 2 = 2$$



answer: 2 inches

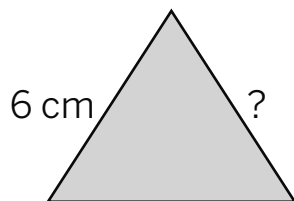


Guided Practice



Calculate the length of the unknown side. Show your thinking.

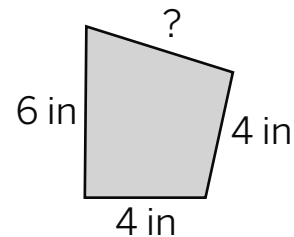
1. This triangle has 3 equal sides and a perimeter of 18 centimeters.



$$18 \div \underline{\quad} = \underline{\quad}$$

answer: centimeters

2. The quadrilateral has a perimeter of 19 inches.



$$6 + \underline{\quad} + \underline{\quad} = \underline{\quad}$$

$$19 - \underline{\quad} = \underline{\quad}$$

answer:



Guided Practice



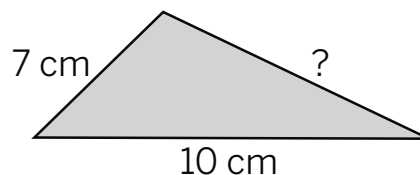
Calculate the length of the unknown side. Show your thinking.

3. This square has 4 equal sides and a perimeter of 24 inches.



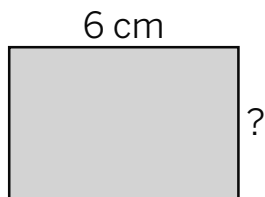
answer: _____

4. This triangle has a perimeter of 26 centimeters.



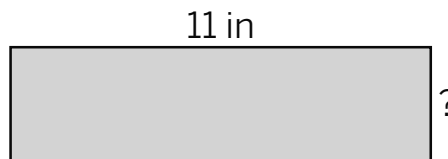
answer: _____

5. This rectangle has a perimeter of 20 centimeters.



answer: _____

6. This rectangle has a perimeter of 28 inches.



answer: _____

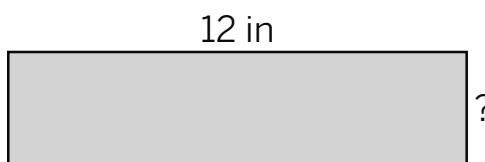


Check



Calculate the length of the unknown side. Show your thinking.

This rectangle has a perimeter of 30 inches. One side has a length of 12 inches.



answer: _____



Extensions

Name Date

**You Choose!**

Pick any problem to start with.

1

In the pattern, there
are 2 circles, 1 star,
2 circles, 1 star,
and so on.



What is the 30th shape?

What is the 100th shape?

Name Date

2

Renee counted the fingers on the right hand in the following way.

The pinky is 1.

The ring finger is 2.

The middle finger is 3.

The pointer is 4.

The thumb is 5.

The pointer is 6.

The middle finger is 7.

The ring finger is 8, and so on.

Which finger will be 1,000?



Name Date

**You Choose!**

Pick any problem to start with.

1

Diego gave 26 balloons to his friends. If he has more than 3 friends and gave the same number of balloons to each friend, how many friends could Diego have?

2

Complete each equation with prime numbers so that each equation is true.

$6 = \underline{\quad} + \underline{\quad}$

$16 = \underline{\quad} + \underline{\quad}$

$8 = \underline{\quad} + \underline{\quad}$

$18 = \underline{\quad} + \underline{\quad}$

$10 = \underline{\quad} + \underline{\quad}$

$20 = \underline{\quad} + \underline{\quad}$

$12 = \underline{\quad} + \underline{\quad}$

$22 = \underline{\quad} + \underline{\quad}$

$14 = \underline{\quad} + \underline{\quad}$

$24 = \underline{\quad} + \underline{\quad}$

Determine 2 more even numbers that can be shown as a sum of 2 prime numbers.

_____ and _____

Name Date

3

Do you think it is true that any even number is a sum of 2 prime numbers? Explain your thinking.

4

Jada arranges books in her home library. All the bookcases in her library are identical, and the same number of books fit on each shelf. If Jada has 1,001 books, how many bookcases does she have in her library? Find all the possible solutions.

Name Date

**You Choose!**

Pick any problem to start with.

1

How do you fold the paper to make thirds?



Show or explain your thinking.

2You have a rope that measures $\frac{2}{3}$ meters. How could you use the rope to measure a length of 50 centimeters?

Show or explain your thinking.

Name Date

**You Choose!**

Pick any problem to start with.

1Jada listed fractions that are equivalent to $\frac{1}{2}$: $\frac{2}{4}$, $\frac{3}{6}$, $\frac{4}{8}$, $\frac{5}{10}$.

She noticed that the numerator increases by 1 and the denominator increases by 2. Will the pattern Jada noticed continue?

**Show or explain your thinking.**

answer: _____

Name Date

2

Here is the fraction $\frac{537}{463}$. What number must be subtracted from the numerator of $\frac{537}{463}$ and added to the denominator to get a fraction equivalent to $\frac{1}{9}$?

 Show or explain your thinking.

answer: _____

Name Date

**You Choose!**

Pick any problem to start with.

1Determine a fraction that is between $\frac{2}{5}$ and $\frac{3}{8}$.

Show or explain your thinking.

2Which fraction is smaller — $\frac{78}{79}$ or $\frac{90}{91}$?

Show or explain your thinking.

answer: _____

Name Date

**You Choose!**

Pick any problem to start with.

1

The table shows the lengths of different shoe sizes in inches.

What do you notice about the insole length as the size increases?

How much will the insole length increase from size 7 to 7.5?
What is the insole length of a size 7.5 shoe?

U.S. shoe size	Insole length (inches)
1	$7\frac{6}{8}$
1.5	8
2	$8\frac{1}{8}$
2.5	$8\frac{2}{8}$
3	$8\frac{4}{8}$
3.5	$8\frac{5}{8}$
4	$8\frac{6}{8}$
4.5	9
5	$9\frac{1}{8}$
5.5	$9\frac{2}{8}$
6	$9\frac{4}{8}$
6.5	$9\frac{5}{8}$
7	$9\frac{6}{8}$

Name Date

Predict the insole lengths for sizes 9, 10, and 12 in inches.
Explain your prediction. Then solve to determine if your prediction is true.

 Show or explain your thinking.

size 9: _____

size 10: _____

size 11: _____

2

Elena used a ruler with a broken end to measure the lengths of a red strip and a blue strip. She measured the blue strip to be $2\frac{1}{2}$ inches and the red strip to be $4\frac{1}{2}$ inches. But when she placed the strips together, the result was $6\frac{1}{2}$ inches. How long is the red strip?

 Show or explain your thinking.

answer: _____

Name Date

**You Choose!**

Pick any problem to start with.

1

Place the digits 1, 2, 3, 4, and 6 exactly once to make the equation true.

$$\square \times \frac{\square}{\square} = \frac{\square}{\square}$$

2Diego walked the same number of miles to school each day. He says that he walked $\frac{48}{5}$ miles in total, but he did not say how many days he walked.

What are some possible numbers of days Diego walked to school and distances he walked each day?

**Show or explain your thinking.**

Name Date



You Choose!

Pick any problem to start with.

1

The difference between 2 numbers equals $\frac{1}{10}$, and the sum of the numbers is $\frac{26}{100}$. What are the 2 numbers?



Show or explain your thinking.

answer: _____

2

A subtraction equation has a minuend, a subtrahend, and a difference.

$$\text{minuend} - \text{subtrahend} = \text{difference}$$

The sum of a minuend, subtrahend and difference is $\frac{7}{10}$.
What is the value of the minuend?



Show or explain your thinking.

minuend: _____

Name Date

3

Create and label a line plot for ribbon lengths so that all the statements are true.

- There are 10 lengths in total.
- The sum of all the lengths is 1 meter.
- The difference between the longest length and the shortest length is $\frac{1}{10}$ meters.
- The most common ribbon length is $\frac{1}{10}$ meters.

Name Date



You Choose!

Pick any problem to start with.

1

Place a symbol between 5 and 6 to make a number that is less than 6 but greater than 5.

5		6
---	--	---

2

Switch the position of 2 cards to make the greatest possible number.

3	2	.	0	9
---	---	---	---	---



Show or explain your thinking.

Name Date

3

Complete the grid with the numbers at the top of table so that each number appears exactly once in each row and column and all the comparison statements are true.

0.21, 0.08, 1.03	$\frac{3}{4}, \frac{23}{100}, 0.7$	$\frac{2}{7}, \frac{4}{13}, 0.3$
<input type="text"/> < <input type="text"/> < <input type="text"/>	<input type="text"/> < <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/>
^		^ ^
<input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> < <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/>
^	^	
<input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> < <input type="text"/> <input type="text"/>

Name Date



You Choose!

Pick any problem to start with.

1

Clare: “Han, I bet if I think of 5 numbers between 0 and 9 and add them up, you’ll never guess the numbers.”

Han: “You’re right, I won’t. But I can guess all your numbers in this way. I can tell my 5 numbers, and you’ll multiply your numbers with them. Then you’ll add the products and tell the sum.”

Uncover Han’s secret and come up with Han’s 5 numbers.

2

Write a four-digit number so that all the statements are true.

- The first digit shows how many times 0 appears.
- The second digit shows how many times 1 appears.
- The third digit shows how many times 2 appears.
- The last digit shows how many times 3 appears.

--	--	--	--

Name Date



You Choose!

Pick any problem to start with.

1

Write the least possible 10-digit number using each of the digits 0, 1, 2, 3, 4, 5, 6, 7, 8, 9 exactly once.

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

Write the greatest possible 10-digit number using each of the digits 0, 1, 2, 3, 4, 5, 6, 7, 8, 9 exactly once.

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

2

Jada chose a number, multiplied it by 7, and rounded it to the nearest hundred, resulting in 900. What result will she get if she multiplies her number by 3 instead of 7 and then rounds the product?



Show or explain your thinking.

Name Date



You Choose!

Pick any problem to start with.

1

Switch the position of 2 cards to make the calculation true.

$$\begin{array}{r}
 \begin{array}{|c|} \hline 4 \\ \hline \end{array} \begin{array}{|c|} \hline 1 \\ \hline \end{array} \begin{array}{|c|} \hline 4 \\ \hline \end{array} \begin{array}{|c|} \hline 1 \\ \hline \end{array} \begin{array}{|c|} \hline 3 \\ \hline \end{array} \begin{array}{|c|} \hline 9 \\ \hline \end{array} \\
 + \begin{array}{|c|} \hline 1 \\ \hline \end{array} \begin{array}{|c|} \hline 9 \\ \hline \end{array} \begin{array}{|c|} \hline 2 \\ \hline \end{array} \begin{array}{|c|} \hline 8 \\ \hline \end{array} \begin{array}{|c|} \hline 5 \\ \hline \end{array} \begin{array}{|c|} \hline 7 \\ \hline \end{array} \\
 \hline
 \begin{array}{|c|} \hline 5 \\ \hline \end{array} \begin{array}{|c|} \hline 8 \\ \hline \end{array} \begin{array}{|c|} \hline 6 \\ \hline \end{array} \begin{array}{|c|} \hline 7 \\ \hline \end{array} \begin{array}{|c|} \hline 9 \\ \hline \end{array} \begin{array}{|c|} \hline 6 \\ \hline \end{array}
 \end{array}$$

2

In each puzzle, each letter represents the same number. Solve each puzzle.

$$\begin{array}{r}
 \begin{array}{|c|} \hline A \\ \hline \end{array} \\
 \begin{array}{|c|} \hline A \\ \hline \end{array} \begin{array}{|c|} \hline B \\ \hline \end{array} \\
 + \begin{array}{|c|} \hline A \\ \hline \end{array} \begin{array}{|c|} \hline B \\ \hline \end{array} \begin{array}{|c|} \hline C \\ \hline \end{array} \\
 \hline
 \begin{array}{|c|} \hline B \\ \hline \end{array} \begin{array}{|c|} \hline C \\ \hline \end{array} \begin{array}{|c|} \hline B \\ \hline \end{array}
 \end{array}$$

$$\begin{array}{r}
 \begin{array}{|c|} \hline v \\ \hline \end{array} \begin{array}{|c|} \hline w \\ \hline \end{array} \begin{array}{|c|} \hline x \\ \hline \end{array} \begin{array}{|c|} \hline y \\ \hline \end{array} \begin{array}{|c|} \hline z \\ \hline \end{array} \\
 \begin{array}{|c|} \hline y \\ \hline \end{array} \begin{array}{|c|} \hline t \\ \hline \end{array} \begin{array}{|c|} \hline u \\ \hline \end{array} \\
 + \begin{array}{|c|} \hline y \\ \hline \end{array} \begin{array}{|c|} \hline t \\ \hline \end{array} \begin{array}{|c|} \hline u \\ \hline \end{array} \\
 \hline
 \begin{array}{|c|} \hline s \\ \hline \end{array} \begin{array}{|c|} \hline r \\ \hline \end{array} \begin{array}{|c|} \hline q \\ \hline \end{array} \begin{array}{|c|} \hline y \\ \hline \end{array} \begin{array}{|c|} \hline z \\ \hline \end{array}
 \end{array}$$

Name Date

3

Shawn and Priya hike up and down a mountain on the same path. Priya is 1,591 feet high and walks down at 7 feet per second. At the same time, Shawn is 283 feet high and walks up at 5 feet per second. How far up the mountain will they be when they pass each other?

 Show or explain your thinking.

Name Date

**You Choose!**

Pick any problem to start with.

1

A boy has as many brothers as sisters. Each sister has half as many sisters as brothers. How many boys and girls are in the family?

 **Show or explain your thinking.**

boys: _____

girls: _____

2

Priya tells Shawn: "If you give me 1 marble, we will each have the same number of marbles." Shawn says, "If you give me 1 marble, I will have twice as many marbles as you have." How many marbles did Priya have originally?

 **Show or explain your thinking.**

answer: _____

Name Date

3

Jada colors a stripe red and blue. The length of the red part is twice the length of the blue part and $2\frac{1}{2}$ inches longer than the blue part. How long is the blue part?

**Show or explain your thinking.****answer:** _____

Converting Length Measurements

Name Date

**You Choose!**

Pick any problem to start with.

1

A pace is a unit of length consisting of 1 normal walking step, about 30 inches long.

How long is a yard in paces?

 Show or explain your thinking.

answer: _____

How many feet are there in 1 pace?

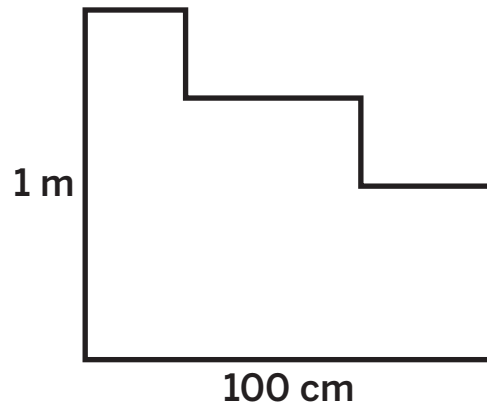
 Show or explain your thinking.

answer: _____

Name Date

2

Determine the perimeter of the shape.

 Show or explain your thinking.

answer: _____

Name Date

**You Choose!**

Pick any problem to start with.

1

Han has 2 containers. One has a capacity of 3 liters, and the other has a capacity of 5 liters. How could he use the containers to collect 4 liters of water?

 **Show or explain your thinking.**

What if one has a capacity of 8 liters and the other has a capacity of 5 liters? How could he use the containers to collect 7 liters of water?

 **Show or explain your thinking.**

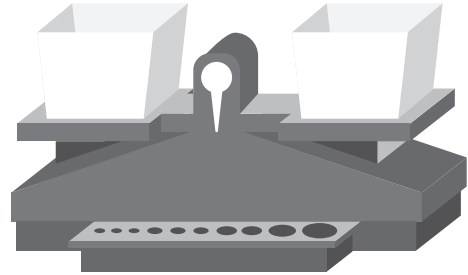
Name Date

2

Here is a balance scale.

There are 9 kilograms of flour in a bag and a balance scale with one 50-gram weight and one 200-gram weight.

If you can only weigh 3 times, how could you divide all the flour into 2 bags so that one contains 2 kilograms and the other contains 7 kilograms?



i Show or explain your thinking.

Name Date

**You Choose!**

Pick any problem to start with.

1

Place the digits 0, 1, 2, 3, 4, 5, 6, 7, 8, and 9 exactly once to make both equations true.

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

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

2

In the puzzle, each letter represents the same number. Solve the puzzle.

$$\begin{array}{r}
 \square A \square B \square C \square D \square E \\
 \times \quad \square \quad \square \quad \square \quad \square \quad \square 4 \\
 \hline
 \square E \square D \square C \square B \square A
 \end{array}$$

Name Date

3Find the last digit in the product $11 \times 22 \times 33 \times 44 \times 55 \times 66$.

Show or explain your thinking.

answer: _____

Name Date

**You Choose!**

Pick any problem to start with.

1

In the puzzle, each letter represents the same number.
Solve the puzzle.

$$\boxed{C} \boxed{A} \boxed{T} \div \boxed{5} = \boxed{A} \boxed{T}$$

2

Shawn writes a five-digit number, divides it by 9, and gets a number written with the same digits but in reverse order. What was Shawn's original number?

**Show or explain your thinking.**

Name Date

**You Choose!**

Pick any problem to start with.

1

Diego has a number greater than 70 but less than 100. It is even, has a remainder of 0 when divided by 5, and a remainder of 2 when divided by 3. What is Diego's number?

**Show or explain your thinking.****answer:** _____**2**

Will the quotient and remainder change if the dividend and divisor are multiplied by 3? Try different numbers and make a general observation.

**Show or explain your thinking.**

Name Date

3

Han has a bag of candies. When he tries to divide them equally between 2 friends, he is short by 1 candy. When Han tries to divide them between 3 friends, he is short by 1 candy again. When Han tries to divide them between 4 friends, he is short by 1 candy again. When Han tries to divide them between 5 friends, he is short by 1 candy again. How many candies are in Han's bag if there are fewer than 100?

**Show or explain your thinking.****answer:** _____

Name Date

**You Choose!**

Pick any problem to start with.

1

I am a capital letter made of more than 1 segment with no curved parts. I have no perpendicular segments or parallel segments. What letter could I be?

 Show or explain your thinking.

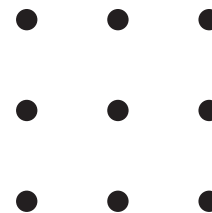
answer: _____

2

Draw a path that passes through all 4 points, returns back to the starting point, and consists of 3 segments.



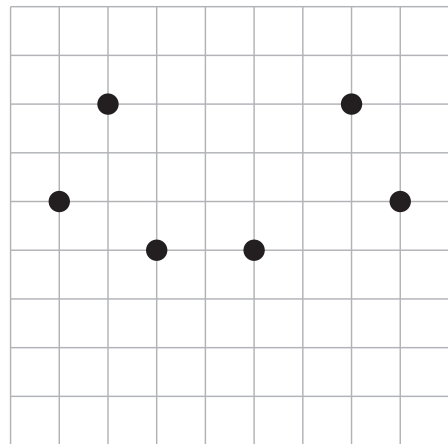
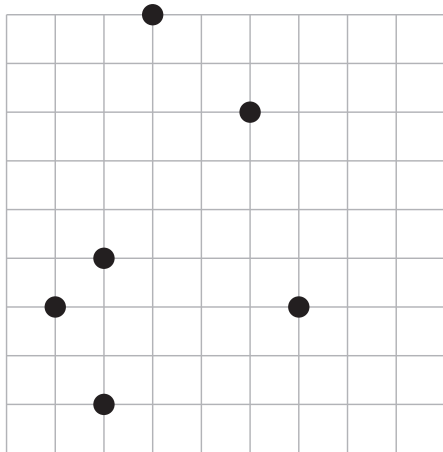
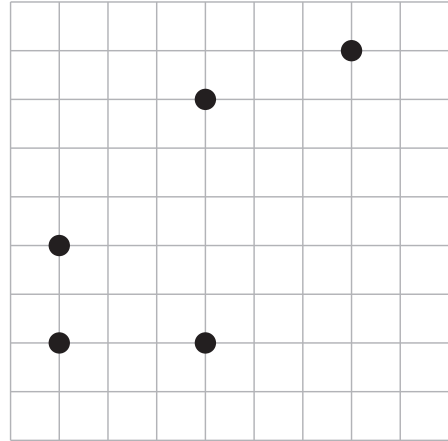
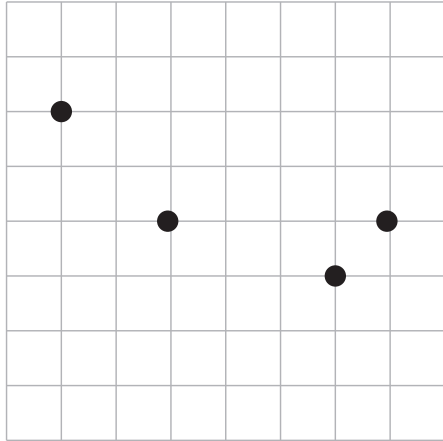
Draw a path that passes through all 9 points and consists of 4 segments.



Name Date

3

For each graph, connect 2 pairs of the given points to create 2 parallel lines.



Name

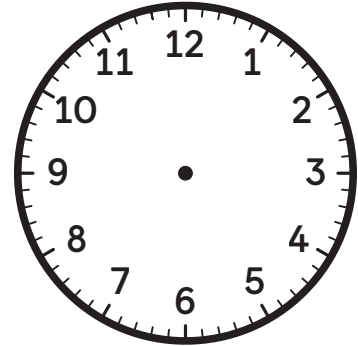
Date

1

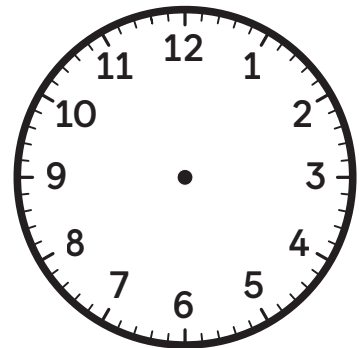
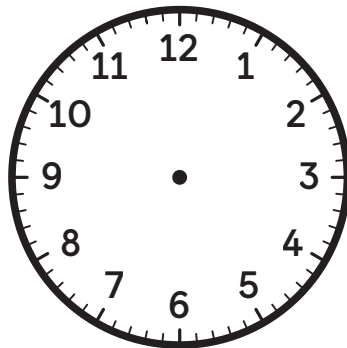
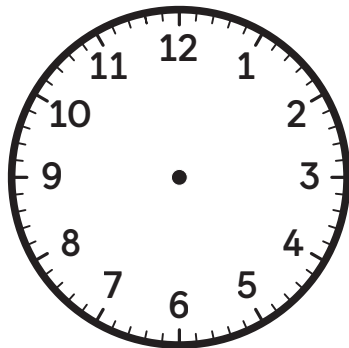
At what moment in time will the angle between the hour and minute hands be equal to 0° ?

Draw it.

How many minutes until the next time this occurs?

**2**

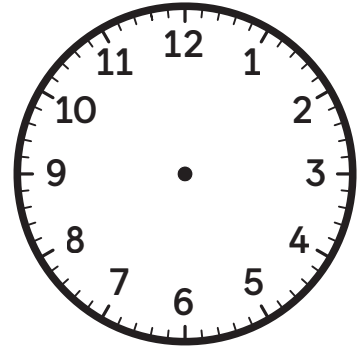
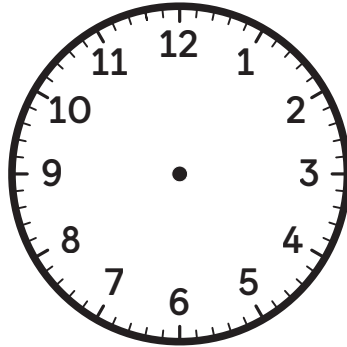
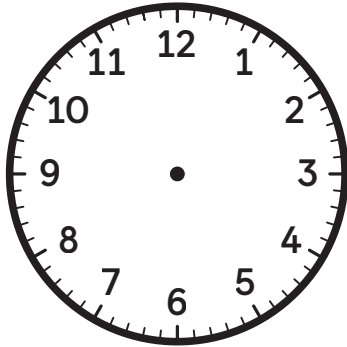
At what moment in time will the angle between the hour and minute hands be a right angle? Draw 3 different times.



Name Date

3

At what moment in time will the angle between the hour and minute hands be a straight angle? Draw 3 different times.



Name Date

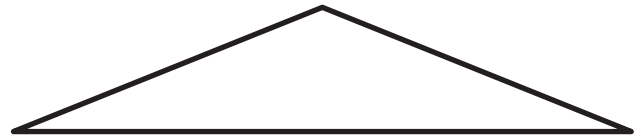
**You Choose!**

Pick any problem to start with.

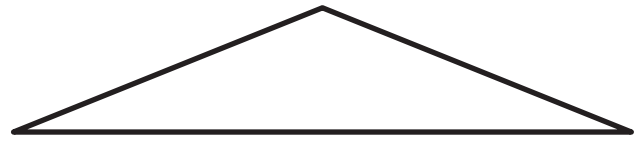
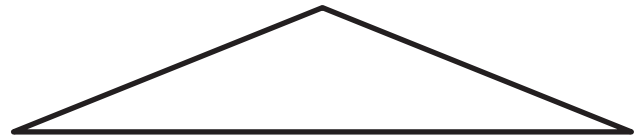
1

Divide each triangle into the following shapes. Draw an example or explain if it is not possible.

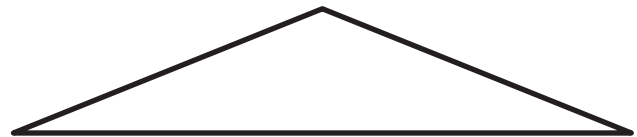
2 obtuse triangles



2 non-obtuse triangles

1 obtuse and
1 acute triangle

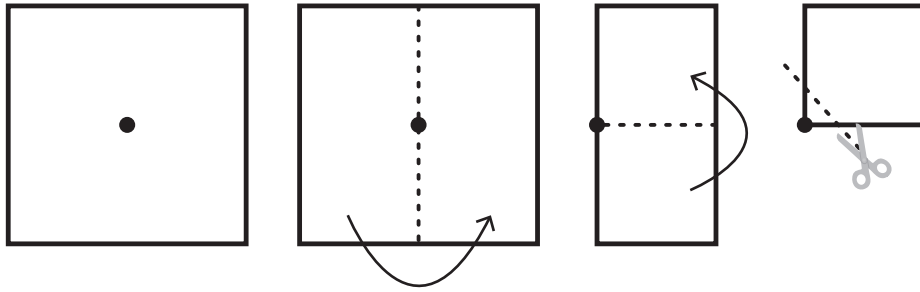
2 acute triangles



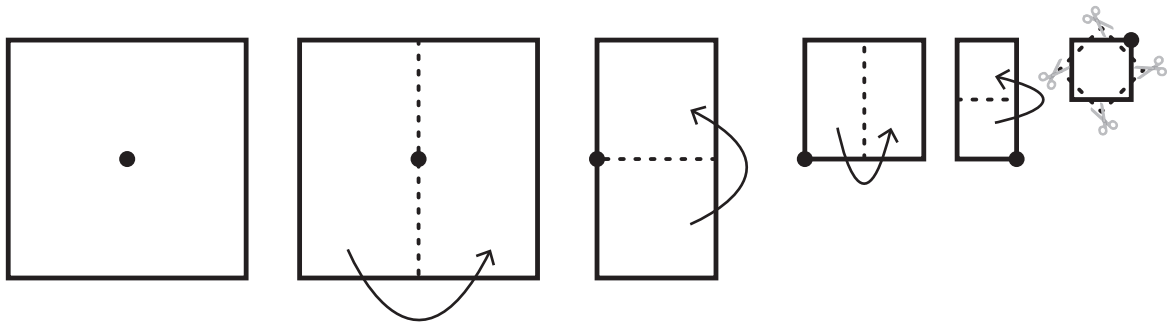
Name Date

2

If you fold a square twice and cut 1 of the corners, what shape will you get after unfolding?



If you fold a square 4 times and cut all of the corners, what shape will you get after unfolding?



Name Date

3



Draw a shape with exactly 1 line of symmetry.

Draw a shape with exactly 2 lines of symmetry.

Draw a shape with exactly 3 lines of symmetry.

Draw a shape with exactly 4 lines of symmetry.



Investigations

Investigation 1

California's Redwoods



CC2 Multi-Digit Numbers CC2 Number and Shape Patterns

4.NBT.6, 4.NBT.4, 4.NBT.5, SMP.1, SMP.2, SMP.4

Task 1

Name _____ Date _____

Famous Redwoods

The table shows information about some of the most famous redwood trees in California.

Tree name	Location	Height (feet)	Age (years)
General Sherman	Sequoia National Park	275	2,200
Grizzly Giant	Yosemite National Park	209	2,900
President	Sequoia National Park	247	3,200
Hyperion	Redwood National Park	380	700

Source: National Park Service, Sempervirens Fund, PBS, and famousredwoods.com

1



Data Talk! What do you notice and wonder about the data in the table?



Task

1

Name _____ Date _____

Famous Redwoods (continued)

Use the information from the table to answer each question.

2 Order the trees from the youngest to the oldest.

_____, _____, _____, _____
youngest oldest

3 How much longer has the oldest tree been alive than the youngest?



Show your thinking.

answer: _____

4 Order the trees from the shortest to the tallest.

_____, _____, _____, _____
shortest tallest

5 How much taller is the tallest tree than the shortest tree?



Show your thinking.

answer: _____



Task

1

Name _____ Date _____

Famous Redwoods (continued)

6 What is your height rounded to the nearest foot?

7 What is the height difference between you and the shortest tree?

8 What is the height difference between you and the tallest tree?

9  **Data Talk!**

What did you find most surprising about this data?

What else would you like to know about redwood trees?



Task

2

Name _____ Date _____

Analyzing Park Data

Choose a California National Park and evaluate the number of visitors in a 6-month period using data from the National Parks Service.

1 Which month had the greatest number of visitors in the 6-month period?

2 Which month had the least number of visitors in the 6-month period?

3 What is the difference between the greatest and least number of visitors to the park in the last 6 months?



Show your thinking.

answer: _____



Task

2

Name _____ Date _____

Analyzing Park Data (continued)

- 4 To the nearest 10,000, approximately how many visitors went to your park in the last 6 months?



Show your thinking.

answer: _____

- 5 Discuss

Meet with another pair to compare your answers to Problem 4.

- Which park had more visitors?
- Approximately how many more visitors did that park have?

Investigation 1

California's Redwoods



Task 3

Name _____ Date _____

Park Pamphlets

You will make a pamphlet.

1 Discuss

What information would be important to include in a pamphlet about a national park?

National Park Information	Important Information	Fun Facts
<input type="text"/>	_____	<input type="text"/>
_____	_____	_____
_____	_____	_____
_____	<input type="text"/>	_____

2 Create a pamphlet that includes:

- The name and location of your park
- A famous redwood tree in your park
- At least 5 pieces of mathematical data

Name _____ Date _____

Redwood Facts

Redwoods . . .

- Are considered the largest living thing by weight (General Sherman). They can weigh more than 6,000,000 pounds.
- Can be as tall as a 26-story building.
- Can be as wide as a city street.
- Can have hollows inside their trunks.
- Create cones, but the cones are only about an inch long.
- Share their roots in order to stabilize one another and share nutrients.
- Have red/orange bark that can be up to a foot thick.
- Have thick barks that help protect them from fires.
- Have bark that contains tannins, which protect the trees from bugs and rot.
- Can live up to 3,200 years.
- Have an average lifespan of 600 years.
- Can grow from seeds or from stumps.
- Appeared on the North American West Coast 20,000,000 years ago.
- Have 3 different types:
 - Coast Redwoods
 - Giant Sequoias
 - Dawn Redwoods
- Grow on the coast of China (specifically dawn redwoods).
- Have been featured in several movies filmed in the California forests, including:
 - *Return of the Jedi*
 - *The Lost World: Jurassic Park*

Sources: Park Service, Humboldt County Visitors Bureau, Save the Redwoods League

Name _____ Date _____

National Park Data

Each table represents the number of visitors at different national parks in California between July and December, 2024.

John Muir Woods

July	August	September	October	November	December
107,686	94,437	70,542	64,043	50,899	45,161

Sequoia National Park

July	August	September	October	November	December
212,834	199,189	148,582	117,625	71,510	56,005

Redwood National Park

July	August	September	October	November	December
84,702	72,318	75,387	51,797	32,140	34,379

Yosemite National Park

July	August	September	October	November	December
574,270	547,217	537,313	462,467	230,748	163,783

Source: National Park Service

Investigation 2

A Community Garden Math Adventure



CC2 Factors and Area Models CC4 Connected Problem Solving

4.MD.3, 4.NBT.5, 4.NBT.6, 4.OA.3, SMP.2, SMP.4, SMP.6

Task 1

Name _____ Date _____

Designing a Garden

1 Discuss

What do you know about community gardens?



2 Imagine you are creating a community garden. What plants would you want to plant?



Task

1

Name _____ Date _____

Designing a Garden (continued)

- 3** Use the grid paper to draw your garden so that each plant has its own rectangular plot. Each grid square has an area of 1 square foot. Be sure to include:
- At least 6 different plots for different plants
 - Labels on each plot
 - A walkway that is at least 3 feet wide between the plots for people to walk on.

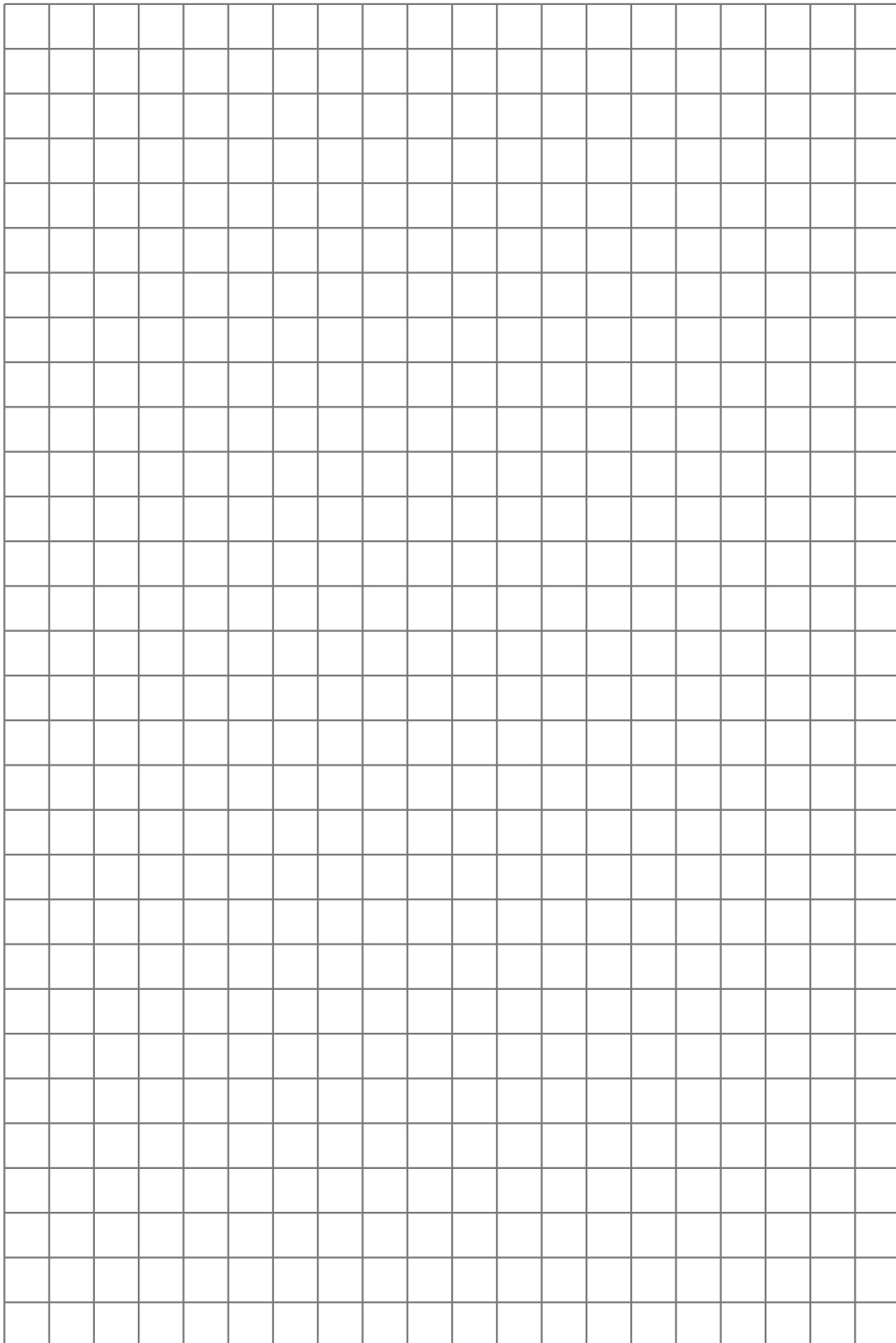


Task

1

Name _____ Date _____

Designing a Garden (continued)





Task

2

Name _____ Date _____

Determining the Cost

- 1 A wooden fence costs \$13 per foot. How much will it cost to put a fence around your entire garden?



Show or explain your thinking.

answer _____

- 2 A wooden border for garden plots costs \$6 per foot. How much will it cost to place borders around all of your garden plots?



Show or explain your thinking.

answer _____



Task

2

Name _____ Date _____

Determining the Cost (continued)

A bag of soil costs \$19 and covers 3 square feet of a garden plot.

3 How many bags of soil are needed to cover all of your garden plots?



Show or explain your thinking.

answer _____

4 How much will you spend on soil for all of your garden plots?



Show or explain your thinking.

answer _____



Task

2

Name _____ Date _____

Determining the Cost (continued)

- 5 Concrete tile costs \$2 per square foot. How much will it cost to tile the walkway in your garden?



Show or explain your thinking.

answer _____

- 6 What is the total cost of materials needed for your garden?



Show or explain your thinking

answer _____



Task

3

Name _____ Date _____

Gallery Tour

1

Discuss 

Share your garden design and compare the strategies you used to calculate the cost of the materials in Task 2.

- What was similar? What was different?
- How did you use area and perimeter to calculate the cost of the materials?