

Name _____



- 1.** Find the property that each equation shows.

Write the equation in the correct box.

$$15 \times (7 \times 9) = (15 \times 7) \times 9$$

$$23 + 4 + 109 = 4 + 23 + 109$$

$$13 + (3 + 7) = (13 + 3) + 7$$

$$87 \times 3 = 3 \times 87$$

$$1 \times 9 = 9$$

$$0 + 16 = 16$$

<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: auto;">Identity Property of Addition</div>	<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: auto;">Commutative Property of Multiplication</div>	<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: auto;">Identity Property of Multiplication</div>
<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: auto;">Associative Property of Multiplication</div>	<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: auto;">Commutative Property of Addition</div>	<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: auto;">Associative Property of Addition</div>

- 2.** For numbers 2a–2b, select Yes or No to indicate whether the value of the equation is correct.

2a. $55 - (12 + 2)$, value: 41 Yes No

2b. $25 + (14 - 4) \div 5$, value: 27 Yes No

- 3.** Carmine buys 8 plates for \$1 each. He also buys 4 bowls. Each bowl costs twice as much as each plate. The store is having a sale that gives Carmine \$3 off the bowls. Which numerical expression shows how much he spent?

(A) $(8 \times 1) + [(4 \times 16) - 3]$

(C) $(8 \times 1) + [(4 \times 2) - 3]$

(B) $(8 \times 1) + [4 \times (16 - 3)]$

(D) $(8 \times 4) + [(4 \times 2) - 3]$

GO ON

Name _____

4. Valerie earns \$24 per hour. Which expression can be used to show how much money she earns in 7 hours?

- (A) $(7 + 20) + (7 + 4)$
(B) $(7 \times 20) + (7 \times 4)$
(C) $(7 + 20) \times (7 + 4)$
(D) $(7 \times 20) \times (7 \times 4)$

5. Evaluate the numerical expression.

$$2 + (65 + 7) \times 3 = \boxed{}$$

6. Jackie followed these steps to evaluate the expression $15 - (37 + 8) \div 3$.

$$37 + 8 = 45$$

$$45 - 15 = 30$$

$$30 \div 3 = 10$$

Mark looks at Jackie's work and says she made a mistake. He says she should have divided by 3 before she subtracted.

Part A

Which student is correct? Explain how you know.

Part B

Evaluate the expression.



Name _____

Practice Test



5.OA.2

Write and interpret numerical expressions.

1. An adult elephant eats about 300 pounds of food each day. Write an expression to represent the number of pounds of food a herd of 12 elephants eats in 5 days.

2. Tara bought 2 bottles of juice a day for 15 days. On the 16th day, Tara bought 7 bottles of juice. Write an expression that matches the words.

3. Paul displays his sports trophies on shelves in his room. He has 5 trophies on each of 3 shelves and 2 trophies on another shelf. Write an expression to represent the number of trophies Paul displays.

4. Peter ran 3 miles a day for 17 days. On the 18th day, Peter ran 5 miles. Write an expression that matches the words.



Name _____

5. Daniel bought 30 tokens when he arrived at the festival. He won 8 more tokens for getting the highest score at the basketball contest, but lost 6 tokens at the ring toss game. Write an expression to find the number of tokens Daniel has left.

6. Write $12.9 + 8$ using words.

7. Write $8 \div (7 - 5)$ using words.

8. For numbers 8a–8e, select Yes or No to indicate whether the expression represents multiplying the sum of 8 and 2 by 6.

- | | | |
|------------------------|---------------------------|--------------------------|
| 8a. $8 + 2 \times 6$ | <input type="radio"/> Yes | <input type="radio"/> No |
| 8b. $(8 + 2) \times 6$ | <input type="radio"/> Yes | <input type="radio"/> No |
| 8c. $8 + (2 \times 6)$ | <input type="radio"/> Yes | <input type="radio"/> No |
| 8d. $6 \times (8 + 2)$ | <input type="radio"/> Yes | <input type="radio"/> No |
| 8e. $6 \times 8 + 2$ | <input type="radio"/> Yes | <input type="radio"/> No |





Name _____

1. The table shows two sequences of numbers.

Day	1	2	3	4	5
Number of T-shirts sold	5	10	15	20	25
Amount earned (\$)	20	40	60	80	?

For numbers 1a–1b, choose the correct values to describe how one sequence is related to the other.

- 1a. The unknown number in Day 5 is

90

100

120

- 1b. The rule that describes how the number of T-shirts sold relates to the amount earned is

add 15

multiply by 5

multiply by 4

2. Jawan made a table to figure out how much he earns at his job.

Job Earnings						
Week	1	2	3	4	...	6
Hours Worked	6	12	18	24	...	36
Amount Earned (\$)	54	108	162	216	...	?

Part A

Write a rule that relates the amount Jawan earns to the number of hours worked. Explain how you can check your rule.

Part B

How much does he earn from his job by the end of Week 6?

\$ _____

GO ON

Name _____

3. Look for a pattern.



Figure 1

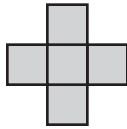


Figure 2

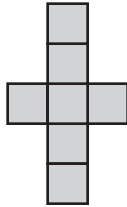


Figure 3

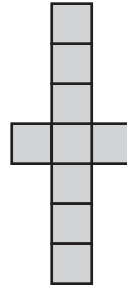


Figure 4

What is the rule? _____

How many squares will there be in Figure 5? _____ squares

4. Steven is buying a new mountain bike on layaway for \$272.

If he pays \$34 each week, how many weeks will it take Steven to pay for the bike? How can making a table help you solve the problem?

5. Look for a pattern.

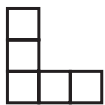


Figure 1

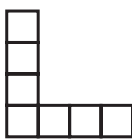


Figure 2

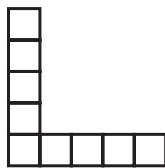


Figure 3

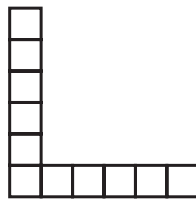


Figure 4

What is the rule? _____

How many squares will there be in Figure 5? _____ squares





Name _____

1. For numbers 1a–1d select Yes or No to indicate whether each statement is correct.

1a. 170 is $\frac{1}{10}$ of 17 Yes No

1b. 660 is 10 times as much as 600 Yes No

1c. 900 is $\frac{1}{10}$ of 9,000 Yes No

1d. 4,400 is 10 times as much as 440 Yes No

2. Carrie has 140 coins. She has 10 times as many coins as she had last month. How many coins did Carrie have last month?

3. Select other ways to write 700,562. Mark all that apply.

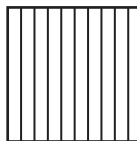
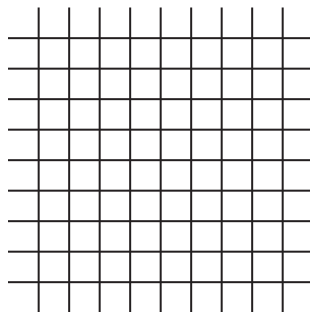
(A) $(7 \times 100,000) + (5 \times 1,000) + (6 \times 10) + (2 \times 1)$

(B) seven hundred thousand, five hundred sixty-two

(C) $700,000 + 500 + 60 + 2$

(D) 7 hundred thousands + 5 hundreds + 62 tens

4. Shade the model to show the decimal 0.542.



Name _____

5. Select other ways to write 50,897. Mark all that apply.

- (A) $(5 \times 10,000) + (8 \times 100) + (9 \times 10) + (7 \times 1)$
- (B) $50,000 + 800 + 90 + 7$
- (C) $5,000 + 800 + 90 + 7$
- (D) fifty thousand, eight hundred ninety-seven

6. 0.84 is 10 times as much as

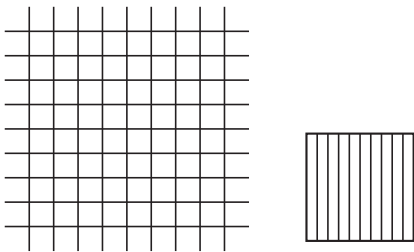
0.084
0.84
8.4
84

 and $\frac{1}{10}$ of

0.084
0.84
8.4
84

.

7. Shade the model to show the decimal 0.674.



8. 0.92 is 10 times as much as

0.0092
0.092
0.92
9.2

 and $\frac{1}{10}$ of

0.0092
0.092
0.92
9.2

.



Name _____



1. The table shows the equations Ms. Valez discussed in math class today.

Equations
$6 \times 10^0 = 6$
$6 \times 10^1 = 60$
$6 \times 10^2 = 600$
$6 \times 10^3 = 6,000$

Explain the pattern of zeros in the product when multiplying by powers of 10.

2. Omar is making a scale model of the Statue of Liberty for a report on New York City. The Statue of Liberty is 305 feet tall measuring from the ground to the tip of the torch. If the model is $\frac{1}{100}$ the actual size of the Statue of Liberty, how tall is the model?

_____ feet

3. For numbers 3a–3d, choose Yes or No to indicate whether the product is correct.

- 3a. $0.62 \times 10 = 62$ Yes No
- 3b. $0.53 \times 10 = 5.3$ Yes No
- 3c. $0.09 \times 100 = 9$ Yes No
- 3d. $0.60 \times 1,000 = 60$ Yes No



Name _____

4. Nicole is making 1,000 bows for people who donate to the library book sale. She needs a piece of ribbon that is 0.75 meter long for each bow. How many meters of ribbon does Nicole need to make the bows? Explain how to find the answer.

5. Rita is hiking along a trail that is 13.7 miles long. So far she has hiked along one-tenth of the trail. How far has Rita hiked?

_____ miles

6. Use the numbers on the tiles to write the value of each expression. You can use a tile more than once or not at all.

$$35.5 \div 10^0 = \square$$

$$35.5 \div 10 = \square$$

$$35.5 \div 10^2 = \square$$



7. Select other ways to express 10^4 . Mark all that apply.

- (A) 10×4
 (B) $10 + 4$
 (C) 1,000
 (D) 10,000
 (E) $10 + 10 + 10 + 10$
 (F) $10 \times 10 \times 10 \times 10$



Name _____



1. What is the value of the underlined digit? Mark all that apply.

0.679

- (A) 0.6 (D) six hundredths
(B) 0.06 (E) $6 \times \frac{1}{10}$
(C) six tenths

2. Choose the value that makes the statement true.

In the number 1.025, the value of the digit 2 is

2	ones
	tenths
	hundredths
	thousandths

, and the value of the digit 5 is 5

ones
tenths
hundredths
thousandths

3. What is the value of the underlined digit? Mark all that apply.

0.589

- (A) 0.8 (D) eight hundredths
(B) 0.08 (E) $8 \times \frac{1}{10}$
(C) eight tenths

4. What is the value of the underlined digit? Mark all that apply. 0.283

- (A) 0.8 (D) $8 \times \frac{1}{100}$
(B) 0.08 (E) eight hundredths
(C) $8 \times \frac{1}{10}$



Name _____

5. Choose the value that makes the statement true.

In the number 2.175, the value of the digit 2 is 2

ones
tenths
hundredths
thousandths

, and

the value of the digit 7 is 7

ones
tenths
hundredths
thousandths

.

6. Write 9.57 in word form.

7. Jon is not sure how to write 81.402 in expanded form using powers of ten. Copy and complete the expanded form of the number.

$$(8 \times \boxed{}) + (1 \times 1) + (4 \times \boxed{}) + (2 \times \boxed{})$$

8. Write $(2 \times 100) + (9 \times 1) + (7 \times \frac{1}{10}) + (8 \times \frac{1}{1,000})$ in standard form.



Name _____



1. Chaz kept a record of how many gallons of gas he purchased each day last week.

Day	Gas (in gallons)
Monday	4.5
Tuesday	3.9
Wednesday	4.258
Thursday	3.75
Friday	4.256

Order the days from least amount of gas Chaz purchased to greatest amount of gas Chaz purchased.

Least				Greatest

2. The four highest scores on the floor exercise at a gymnastics meet were 9.675, 9.25, 9.325, and 9.5 points. Choose the numbers that make the statement true.

The lowest of these four scores was

9.675
9.25
9.325
9.5

 points. The highest

of these four scores was

9.675
9.25
9.325
9.5

 points.



Name _____

3. Jasmine kept a record of how many miles she ran each week during one month.

Week	Distance (in miles)
Week 1	4.754
Week 2	4.752
Week 3	5.19
Week 4	5.75

Order the weeks from the least amount of miles Jasmine ran to the greatest amount of miles Jasmine ran.

Least			Greatest

4. The four highest scores at a diving meet were 9.08, 9.1, 9.15, and 9.06 points. Choose the numbers that make the statement true.

The lowest of these four scores was

9.08
9.1
9.15
9.06

 points.

The highest of these four scores was

9.08
9.1
9.15
9.06

 points.

5. In which number is the value of the digit 5 greater? Write the number in the box.

3.514	25	
-------	----	--



Name _____



1. For numbers 1a–1c, select Yes or No to indicate whether each statement is correct.

1a. 16.437 rounded to the nearest whole number is 16. Yes No

1b. 16.437 rounded to the nearest tenth is 16.4. Yes No

1c. 16.437 rounded to the nearest hundredth is 16.43. Yes No

2. Rafael bought 2.15 pounds of potato salad and 4.2 pounds of macaroni salad to bring to a picnic. For numbers 2a–2c, select Yes or No to indicate whether each statement is true.

2a. Rounded to the nearest whole number, Rafael bought 2 pounds of potato salad. Yes No

2b. Rounded to the nearest whole number, Rafael bought 4 pounds of macaroni salad. Yes No

2c. Rounded to the nearest tenth, Rafael bought 2.1 pounds of potato salad. Yes No

3. Michelle records the value of one Euro in U.S. dollars each day for her social studies project. The table shows the data she has recorded so far.

Day	Value of 1 Euro (in U.S. dollars)
Monday	1.448
Tuesday	1.443
Wednesday	1.452
Thursday	1.458

On which two days was the value of 1 Euro the same when rounded to the nearest hundredth of a dollar?



Name _____

4. The price of a certain brand of cereal at the grocery store is \$0.258 per ounce. For numbers 4a–4c, select Yes or No to indicate whether each statement is correct.

- 4a. Rounded to the nearest whole number, the price is \$1 per ounce. Yes No
- 4b. Rounded to the nearest tenth, the price is \$0.3 per ounce. Yes No
- 4c. Rounded to the nearest hundredth, the price is \$0.26 per ounce. Yes No

5. For numbers 5a–5c, select Yes or No to indicate whether each statement is correct.

- 5a. 1.682 inches rounded to the nearest whole number is 1 inch. Yes No
- 5b. 1.682 inches rounded to the nearest tenth is 1.6 inches. Yes No
- 5c. 1.682 inches rounded to the nearest hundredth is 1.68 inches. Yes No

6. Trudy is going to London next summer. Each week, she records the value of one British pound in U.S. dollars. The table shows the data she has recorded so far.

Week	Value of 1 British Pound (in U.S dollars)
1	1.598
2	1.616
3	1.634
4	1.623

For which two weeks was the value of 1 British pound the same when rounded to the nearest hundredth of a dollar?



Name _____

Practice Test



5.NBT.5

Perform operations with multi-digit whole numbers and with decimals to hundredths.

1. It is 3,452 miles round trip to Craig’s aunt’s house. If he travels to her house 3 times this year, how many miles did he travel in all?

_____ miles

2. Lindsey earns \$33 per day at her part-time job. Complete the table to show the total amount Lindsey earns.

Lindsey’s Earnings	
Number of Days	Total Amount
3	
8	
14	

3. Jeannette eats a breakfast sandwich that has 345 calories. If she eats the same kind of sandwich every day for 12 days, how many calories would she have for breakfast?

_____ calories

4. There are 8 teachers going to the science museum. If each teacher pays \$15 to get inside, how much did the teachers pay?

\$ _____

5. For numbers 5a–5b, select Yes or No to indicate whether each equation is correct.

5a. $1,205 \times 3 = 3,605$

Yes

No

5b. $1,362 \times 5 = 6,810$

Yes

No

GO ON

Name _____

6. Rachel earns \$21 per day. For numbers 6a–6d, select Yes or No to indicate whether each statement is correct.

6a. Rachel earns \$421 for 20 days of work. Yes No

6b. Rachel earns \$315 for 15 days of work. Yes No

6c. Rachel earns \$273 for 13 days of work. Yes No

6d. Rachel earns \$250 for 13 days of work. Yes No

7. It is 1,325 feet from Kinsey's house to her school. Kinsey walks to school each morning and gets a ride home each afternoon. How many feet does Kinsey walk to school in 5 days?

_____ feet

8. Liam saves \$12 of his allowance each week. Complete the table to show the total amount Liam saves.

Liam's Savings	
Number of Weeks	Total Amount
4	
9	
15	

9. Marlene can type 157 words per minute. If she types at the same rate, how many words can she type in 25 minutes?

_____ words





Name _____

1. Jill wants to find the quotient. Use multiplication and the Distributive Property to help Jill find the quotient.

$$144 \div 8 = \boxed{}$$

Multiplication

Distributive Property

2. Choose the word that makes the sentence true.
The first digit in the quotient of $1,875 \div 9$

will be in the

ones
tens
hundreds
thousands

 place.

3. Dana is making a seating chart for an awards banquet. There are 184 people coming to the banquet. If 8 people can be seated at each table, how many tables will be needed for the awards banquet?

_____ tables

4. For numbers 4a–4d, select Yes or No to indicate whether the quotient is correct.

4a. $225 \div 9 = 25$ Yes No

4b. $154 \div 7 = 22$ Yes No

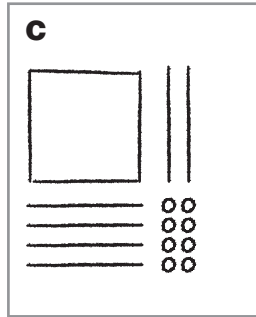
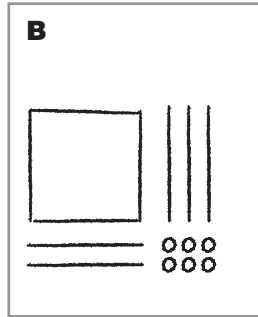
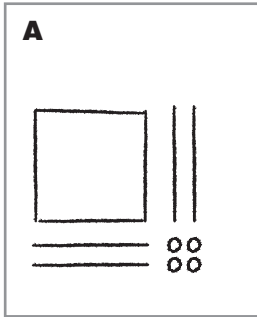
4c. $312 \div 9 = 39$ Yes No

4d. $412 \div 2 = 260$ Yes No

GO ON

Name _____

5. Write the letter for each quick picture under the division problem it represents.



$$156 \div 12 = 13$$

$$168 \div 12 = 14$$

$$144 \div 12 = 12$$

6. Divide 575 by 14 by using partial quotients. What is the quotient? Explain your answer using numbers and words.



Name _____

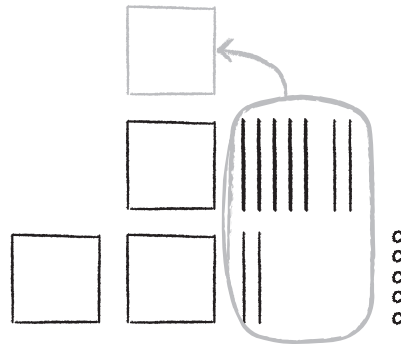
Practice Test



5.NBT.7

Perform operations with multi-digit whole numbers and with decimals to hundredths.

1. Clayton Road is 2.25 miles long. Wood Pike Road is 1.7 miles long. Kisha used a quick picture to find the combined length of Clayton Road and Wood Pike Road. Does Kisha's work make sense? Explain why or why not.



2. The school is 3.65 miles from Tonya's house and 1.28 miles from Jamal's house. How much farther from school is Tonya's house than Jamal's house? Explain how you can use a quick picture to solve the problem.

3. A vet measured the mass of two birds. The mass of the robin was 76.64 grams. The mass of the blue jay was 81.54 grams. Estimate the difference in the masses of the birds.

about _____ grams

4. Ken and Leah are trying to solve a science homework question. They need to find out how much a rock that weighs 4 pounds on Earth would weigh on Venus. They know they can multiply the amount the rock weighs on Earth by 0.91 to find its weight on Venus. Select the partial products Ken and Leah would need to add to find the product of 4 and 0.91. Mark all that apply.

- (A) 0.95 (B) 0.04 (C) 3.65 (D) 3.6 (E) 0.36



Name _____

5. Write each number in a box next to the expression that has the same value. A number may be used more than once.

8.99

89.9

899

$29 \times 31 = \square$

$29 \times 3.1 = \square$

$0.29 \times 31 = \square$

$2.9 \times 31 = \square$

6. Melinda, Zachary, and Heather went to the mall to shop for school supplies. Melinda spent \$14.25 on her supplies. Zachary spent \$2.30 more than Melinda spent. Heather spent 2 times as much money as Zachary spent. How much did Heather spend on school supplies?

\$ _____

7. Draw a model to show $5.5 \div 5$.

$5.5 \div 5 = \square$

8. Emma, Brandy, and Damian will cut a rope that is 29.8 feet long into 3 jump ropes. Each of the 3 jump ropes will be the same length. Write a division sentence using compatible numbers to estimate the length of each rope.



Name _____

Practice Test



5.NF.1

Use equivalent fractions as a strategy to add and subtract fractions.

1. Write $\frac{2}{5}$ and $\frac{1}{3}$ as equivalent fractions using a common denominator.

and

2. Jill brought $2\frac{1}{3}$ boxes of carrot muffins for a bake sale. Mike brought $1\frac{3}{4}$ boxes of apple muffins. What is the total number of boxes of muffins Jill and Mike brought to the bake sale?

_____ boxes of muffins

3. Joshua uses a rule to write the following sequence of numbers.

$$\frac{1}{6}, \frac{1}{2}, \frac{5}{6}, \text{_____}, 1\frac{1}{2}$$

What rule did Joshua use?

What is the missing number in the sequence?

4. For numbers 4a–4c, tell whether each expression was rewritten using the Commutative Property or the Associative Property. Choose the correct property of addition.

4a. $\frac{1}{6} + \left(\frac{7}{8} + \frac{5}{6}\right) = \frac{1}{6} + \left(\frac{5}{6} + \frac{7}{8}\right)$

Associative Property

Commutative Property

4b. $\left(\frac{7}{10} + \frac{1}{3}\right) + \frac{1}{10} = \left(\frac{1}{3} + \frac{7}{10}\right) + \frac{1}{10}$

Associative Property

Commutative Property

4c. $\left(6\frac{2}{5} + \frac{4}{9}\right) + 3\frac{2}{9} = 6\frac{2}{5} + \left(\frac{4}{9} + 3\frac{2}{9}\right)$

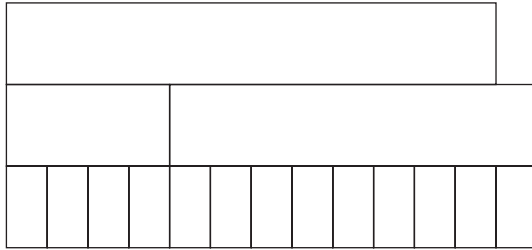
Associative Property

Commutative Property

GO ON

Name _____

5. Jeffrey walked $\frac{1}{3}$ mile on Monday and jogged $\frac{3}{4}$ mile on Tuesday. How far did he walk and jog on Monday and Tuesday combined? Use the tiles to complete the fraction strip model to show how you found your answer. The fractions may be used more than once or not at all.



_____ mile(s)

6. Tom exercised $\frac{4}{5}$ hour on Monday and $\frac{5}{6}$ hour on Tuesday.

Part A

Complete the calculations below to write equivalent fractions with a common denominator.

$$\frac{4}{5} = \frac{4 \times \boxed{}}{5 \times \boxed{}} = \frac{\boxed{}}{\boxed{}}$$

$$\frac{5}{6} = \frac{5 \times \boxed{}}{6 \times \boxed{}} = \frac{\boxed{}}{\boxed{}}$$

Part B

How much time did Tom spend exercising on Monday and Tuesday combined? Explain how you found your answer.

Part C

How much longer did Tom spend exercising on Tuesday than he spent on Monday? Explain how you found your answer.



Name _____

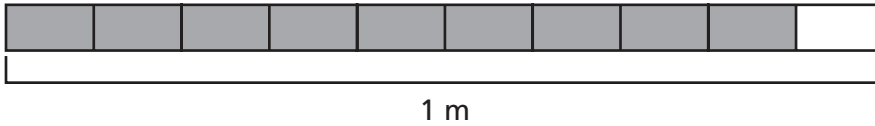
Practice Test



5.NF.2

Use equivalent fractions as a strategy to add and subtract fractions.

1. The shaded part of the diagram shows what Genie has left from a meter of string. She will use $\frac{3}{5}$ meter of string to make bracelets. She wants to determine how much of the string she will have remaining after making the bracelets. For numbers 1a–1c, select Yes or No to indicate whether each statement is true.



- 1a. To determine how much string will be left after making the bracelets, Rebecca must find $\frac{9}{10} - \frac{3}{5}$. Yes No
- 1b. The fractions $\frac{3}{5}$ and $\frac{6}{10}$ are equivalent. Yes No
- 1c. Rebecca will have $\frac{1}{5}$ meter of string left. Yes No

2. Sophia babysat for $3\frac{7}{12}$ hours on Friday. She babysat for $2\frac{5}{6}$ hours on Saturday. For numbers 2a–2c, estimate how long Sophia babysat on Friday and Saturday combined. Choose the correct benchmarks and sum.

2a. Sophia babysat for about

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

hours on Friday.

2b. Sophia babysat for about

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

hours on Saturday.

2c. Sophia babysat for about

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

hours on Friday and Saturday combined.

GO ON

Name _____

3. Four students spent time volunteering last weekend. The table shows how much time each student spent volunteering.

Volunteering	
Student	Time (in hours)
Amy	$4\frac{5}{6}$
Beth	$6\frac{1}{2}$
Victor	$5\frac{3}{4}$
Cal	$5\frac{2}{3}$

Match each pair of students with the difference between how much time they spent volunteering.

- | | |
|-------------------|------------------------|
| Amy and Victor • | • $\frac{3}{4}$ hour |
| Cal and Beth • | • $\frac{11}{12}$ hour |
| Beth and Victor • | • $\frac{5}{6}$ hour |

4. Rodrigo practiced playing the guitar $15\frac{1}{3}$ hours over the past 3 weeks. He practiced for $6\frac{1}{4}$ hours during the first week and $4\frac{2}{3}$ hours during the second week. How much time did Rodrigo spend practicing during the third week? Use the numbers and symbols to write an equation that represents the problem. Then solve the equation. Symbols may be used more than once or not at all.

$15\frac{1}{3}$	$6\frac{1}{4}$	$4\frac{2}{3}$	x	$=$	$+$
-----------------	----------------	----------------	-----	-----	-----

Practice time during third week: _____ hours



Name _____

Practice Test



5.NF.3

Apply and extend previous understandings of multiplication and division to multiply and divide fractions.

1. Samuel needs 233 feet of wood to build a fence. The wood comes in lengths of 11 feet.

Part A

How many total pieces of wood will Samuel need? Explain your answer.

Part B

Theresa needs twice as many feet of wood as Samuel. How many pieces of wood does Theresa need? Explain your answer.

2. Twelve pounds of beans are distributed equally into 8 bags to give out at the food bank. How many pounds of beans are in each bag?

_____ pounds

3. Five friends share 3 bags of trail mix equally. What fraction of a bag of trail mix does each friend get?

4. Zoe has 5 cucumbers she grew in her garden. She wants to share them equally among 4 of her neighbors. How many cucumbers will each neighbor receive? Use the numbers on the tiles to complete the number sentence. You may use a number more than once or not at all.



$$\square \div \square = \frac{\square}{\square} = \square \frac{\square}{\square}$$

GO ON

Name _____

5. Steve is buying apples for the fifth grade. Each bag holds 12 apples. If there are 75 students total, how many bags of apples will Steve need to buy if he wants to give one apple to each student?

_____ bags

6. Russ and Vickie are trying to solve this problem: There are 146 students taking buses to the museum. If each bus holds 24 students, how many buses will they need?

Russ says the students need 6 buses. Vickie says they need 7 buses. Who is correct? Explain your reasoning.

7. Seven friends picked 7 quarts of blueberries. Three of the friends will share 4 quarts of blueberries equally and the other 4 friends will share 3 quarts of the blueberries equally. In which group does each friend get a greater amount of blueberries? Explain your reasoning.

8. Nine friends share 3 pumpkin pies equally. What fraction of a pumpkin pie does each friend get?

Each friend will get of a pumpkin pie.



Name _____

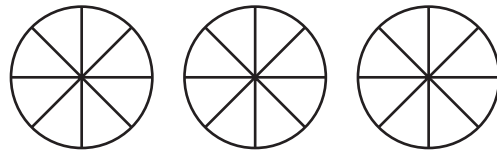
Practice Test



5.NF.4a

Apply and extend previous understandings of multiplication and division to multiply and divide fractions.

1. Mrs. Williams is organizing her office supplies. There are 3 open boxes of paper clips in her desk drawer. Each box has $\frac{7}{8}$ of the paper clips remaining. How many boxes of paper clips are left? Shade the model and complete the calculations below to show how you found your answer.



$$3 \times \frac{7}{8} = \frac{\boxed{}}{8} = \underline{\hspace{2cm}} \text{ full boxes of paper clips}$$

2. Logan bought 15 balloons. Four-fifths of the balloons are purple. How many of the balloons are purple? Draw a model to show how you found your answer.



_____ purple balloons

3. Taniqua took a test that had 20 multiple-choice questions and 10 True/False questions. She got $\frac{9}{10}$ of the multiple-choice questions correct, and she got $\frac{4}{5}$ of the True/False questions correct.

3a. How many multiple-choice questions did Taniqua get correct?

_____ multiple-choice questions

3b. How many True/False questions did Taniqua get correct?

_____ True/False questions

GO ON

Name _____

4. Frannie put $\frac{2}{3}$ of her music collection on an mp3 player. While on vacation, she listened to $\frac{3}{5}$ of the music on the player. How much of Frannie’s music collection did she listen to while on vacation? For numbers 4a–4d, choose the correct values to describe how to solve the problem.

4a. Draw a rectangular array with 3 rows and

3
4
5

 columns.

4b. Shade

1
2
3

 of the rows gray.

4c. Shade

3
5
6

 of the gray squares black.

4d. Frannie listened to

$\frac{2}{5}$
$\frac{3}{5}$
$\frac{3}{5}$
$\frac{3}{10}$

 of her music collection while on vacation.

5. In a fifth grade class, $\frac{4}{5}$ of the girls have brown hair. Of the brown-haired girls, $\frac{3}{4}$ of them have long hair. Of the girls with long brown hair, $\frac{1}{3}$ of them have green eyes.

Part A

What fraction of the girls in the class have long brown hair?

_____ of the girls

Part B

What fraction of the girls in the class have long brown hair and green eyes?

_____ of the girls



Name _____

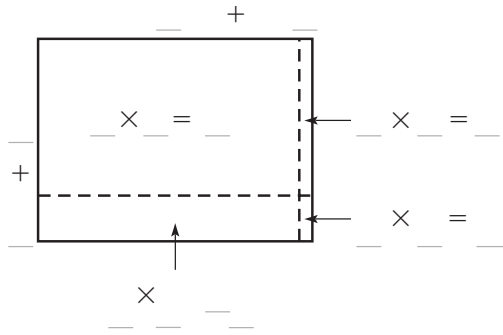
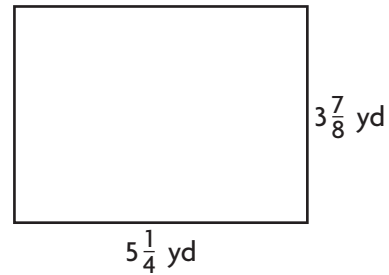
Practice Test



5.NF.4b

Apply and extend previous understandings of multiplication and division to multiply and divide fractions.

1. Caleb's family room has the dimensions shown. He needs to find the area of the room so that he knows how much carpet to buy. Complete the area model below to find the area of the family room.



area of the room = _____ square yards

2. Louis wants to carpet the rectangular floor of his basement. The basement has an area of 864 square feet. The width of the basement is $\frac{2}{3}$ its length. What is the length of Louis's basement?

_____ feet

3. A postcard has an area of 24 square inches. Two enlargements of the postcard have areas of 54 square inches and 96 square inches. In each postcard, the length is $1\frac{1}{2}$ times the width. Which of the following could be the dimensions of the postcard or one of the enlargements? Mark all that apply.

- A 6 inches by 9 inches D 6 inches by 12 inches
 B 10 inches by 15 inches E 4 inches by 6 inches
 C 8 inches by 12 inches

4. The Gilberts are designing a rectangular patio. The patio has an area of 432 square feet. The width of the patio is $\frac{3}{4}$ its length. What is the length of the patio?

_____ feet

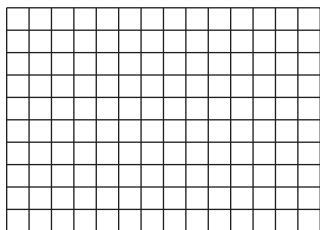
GO ON

Name _____

5. Peggy is making a quilt using panels that are $\frac{1}{2}$ foot by $\frac{1}{2}$ foot. The quilt is $5\frac{1}{2}$ feet long and 4 feet wide.

Part A

Let each square of the grid below represent $\frac{1}{2}$ foot by $\frac{1}{2}$ foot. Draw a rectangle on the grid to represent the quilt.

**Part B**

What is the area of the quilt? Explain how you found your answer.

_____ square feet

6. An area rug has an area of 48 square feet. Two similar rugs have areas of 108 square feet and 192 square feet. In each rug, the length is $1\frac{1}{3}$ times the width. Which of the following could be the dimensions of one of the area rugs? Mark all that apply.

- (A) 6 feet by 8 feet
- (B) 10 feet by 18 feet
- (C) 9 feet by 12 feet
- (D) 12 feet by 16 feet
- (E) 4 feet by 12 feet



Name _____

Practice Test



5.NF.5a

Apply and extend previous understandings of multiplication and division to multiply and divide fractions.

1. Diana worked on her science project for $5\frac{1}{3}$ hours. Gabe worked on his science project $1\frac{1}{4}$ times as long as Diana. Paula worked on her science project $\frac{3}{4}$ times as long as Diana. For numbers 1a–1d, select Yes or No to indicate whether each statement is correct.

- 1a. Diana worked longer on her science project than Gabe worked on his science project. Yes No
- 1b. Paula worked less on her science project than Diana worked on her science project. Yes No
- 1c. Gabe worked longer on his science project than Paula worked on her science project. Yes No
- 1d. Gabe worked longer on his science project than Diana and Paula combined. Yes No

2. Write each multiplication expression in the correct box.

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

Product is equal to $\frac{4}{5}$.

Product is greater than $\frac{4}{5}$.

Product is less than $\frac{4}{5}$.

3. Doreen lives $\frac{3}{4}$ mile from the library. Sheila lives $\frac{1}{3}$ as far away from the library as Doreen. For numbers 3a–3c, choose Yes or No to answer each question.

- 3a. Does Doreen live farther from the library than Sheila? Yes No
- 3b. Does Sheila live $\frac{1}{4}$ mile from the library? Yes No
- 3c. Does Sheila live twice as far from the library than Doreen? Yes No



Name _____

4. Write each multiplication expression in the correct box.

$$\frac{5}{6} \times \frac{2}{3} \quad 2 \times \frac{5}{6} \quad \frac{5}{6} \times \frac{4}{4} \quad \frac{5}{6} \times \frac{7}{3} \quad \frac{10}{10} \times \frac{5}{6} \quad \frac{5}{6} \times \frac{5}{6}$$

Product is equal to $\frac{5}{6}$.Product is greater than $\frac{5}{6}$.Product is less than $\frac{5}{6}$.

5. Stuart rode his bicycle $6\frac{3}{5}$ miles on Friday. On Saturday he rode $1\frac{1}{3}$ times as far as he rode on Friday. On Sunday he rode $\frac{5}{6}$ times as far as he rode on Friday. For numbers 5a–5d, select Yes or No to indicate whether each statement is correct.

- 5a. Stuart rode more miles on Saturday than he rode on Friday. Yes No
- 5b. Stuart rode more miles on Friday than he rode on Saturday and Sunday combined. Yes No
- 5c. Stuart rode fewer miles on Sunday than he rode on Friday. Yes No
- 5d. Stuart rode more miles on Sunday than he rode on Saturday. Yes No

6. Write each multiplication expression in the correct box.

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

Product is equal to $\frac{2}{3}$.Product is greater than $\frac{2}{3}$.Product is less than $\frac{2}{3}$.

Name _____

Practice Test



5.NF.5b

Apply and extend previous understandings of multiplication and division to multiply and divide fractions.

1. A scientist had $\frac{3}{5}$ liter of solution. He used $\frac{1}{6}$ of the solution for an experiment. How much solution did the scientist use for the experiment? Use the numbers on the tiles to complete the calculations. You may use numbers more than once or not at all.

$$\frac{3}{5} \times \frac{1}{6} = \frac{3 \times \boxed{}}{5 \times \boxed{}} = \frac{\boxed{}}{\boxed{}} = \frac{\boxed{}}{\boxed{}}$$

1	2	3	4
6	10	20	30

_____ liter

2. For numbers 2a–2d, without multiplying, use the symbols from the list on the right to indicate the product will compare with the factor. Symbols can be used more than once.

<	>	=
---	---	---

2a. $\frac{13}{4} \times \frac{5}{8} = x$

x $\boxed{}$ $\frac{13}{4}$

x $\boxed{}$ $\frac{5}{8}$

2b. $\frac{4}{3} \times 6 = x$

x $\boxed{}$ $\frac{4}{3}$

x $\boxed{}$ 6

2c. $\frac{2}{5} \times \frac{1}{7} = x$

x $\boxed{}$ $\frac{2}{5}$

x $\boxed{}$ $\frac{1}{7}$

2d. $\frac{5}{8} \times \frac{7}{7} = x$

x $\boxed{}$ $\frac{5}{8}$

x $\boxed{}$ $\frac{7}{7}$

3. $\frac{4}{5} \times \frac{3}{8}$ $\left\{ \begin{array}{l} < \\ > \\ = \end{array} \right.$ $\frac{4}{5}$

4. $\frac{8}{6} \times \frac{2}{3}$ $\left\{ \begin{array}{l} < \\ > \\ = \end{array} \right.$ $\frac{2}{3}$

GO ON

Name _____

5. Without multiplying, classify each product as being less than $\frac{2}{3}$, equal to $\frac{2}{3}$, or greater than $\frac{2}{3}$. Write the letter of each expression under the correct category.

A $\frac{2}{3} \times \frac{1}{5}$ **B** $\frac{2}{3} \times \frac{8}{5}$ **C** $\frac{2}{3} \times \frac{9}{9}$ **D** $\frac{2}{3} \times \frac{6}{1}$ **E** $\frac{2}{3} \times \frac{8}{9}$ **F** $\frac{2}{3} \times 2$

Less Than $\frac{2}{3}$

Equal to $\frac{2}{3}$

Greater Than $\frac{2}{3}$

6. For numbers 6a–6d, without multiplying, use the symbols from the list on the right to indicate how the product will compare with the factor. Symbols can be used more than once.

6a. $\frac{3}{4} \times \frac{15}{7} = x$

x $\frac{3}{4}$

x $\frac{15}{7}$

6b. $7 \times \frac{6}{5} = x$

x 7

x $\frac{6}{5}$

6c. $\frac{8}{9} \times \frac{1}{5} = x$

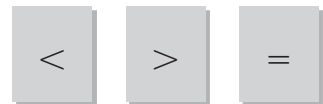
x $\frac{8}{9}$

x $\frac{1}{5}$

6d. $\frac{8}{8} \times \frac{7}{10} = x$

x $\frac{8}{8}$

x $\frac{7}{10}$



7. $\frac{6}{13} \times \frac{3}{4}$ $\frac{3}{4}$

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

9. $\frac{5}{9} \times \frac{3}{3}$ $\frac{5}{9}$



Name _____

Practice Test



5.NF.6

Apply and extend previous understandings of multiplication and division to multiply and divide fractions.

1. Kayla walks $3\frac{2}{5}$ miles each day. Which of the following statements correctly describe how far she walks? Mark all that apply.

- A Kayla walks $14\frac{2}{5}$ miles in 4 days.
- B Kayla walks $23\frac{4}{5}$ miles in 7 days.
- C Kayla walks 34 miles in 10 days.
- D Kayla walks $102\frac{2}{5}$ miles in 31 days.

2. The table shows how many hours some of the part-time employees at the toy store worked last week.

Name	Hours Worked
Conrad	$6\frac{2}{3}$
Giovanni	$9\frac{1}{2}$
Sally	$10\frac{3}{4}$

This week, Conrad will work $1\frac{3}{4}$ times longer than last week. Giovanni will work $1\frac{1}{3}$ times longer than last week. Sally will work $\frac{2}{3}$ the number of hours she worked last week. Match each employee's name to the number of hours he or she will work this week.

Employee	Hours This Week
Conrad •	• $7\frac{1}{6}$
Giovanni •	• $12\frac{2}{3}$
Sally •	• $11\frac{2}{3}$

3. For numbers 3a–3d, select Yes or No to indicate whether each equation is true.

- 3a. $\frac{3}{5} \times \frac{2}{7} = \frac{21}{10}$ Yes No
- 3b. $\frac{2}{9} \times \frac{5}{3} = \frac{10}{27}$ Yes No
- 3c. $\frac{7}{8} \times \frac{5}{9} = \frac{35}{72}$ Yes No
- 3d. $\frac{1}{2} \times \frac{3}{5} = \frac{4}{10}$ Yes No



Name _____

4. Jessica rides the bus $8\frac{4}{5}$ miles each day. Which statements correctly describe how far she rides the bus? Mark all that apply.

- (A) Jessica rides the bus $35\frac{1}{5}$ miles in 4 days.
 (B) Jessica rides the bus $61\frac{4}{5}$ miles in 7 days.
 (C) Jessica rides the bus 88 miles in 10 days.
 (D) Jessica rides the bus $218\frac{2}{5}$ miles in 25 days.

5. The table shows how many bags of canned goods each class collected during the first week of a food drive.

Class	Bags of Canned Goods
4 th Graders	$3\frac{1}{2}$
5 th Graders	$2\frac{3}{4}$
6 th Graders	$3\frac{1}{4}$

Next week the 4th graders hope to collect $1\frac{1}{3}$ times as many bags of canned goods as the first week. The 5th graders' goal is to collect $1\frac{3}{4}$ times as many bags of canned goods as they collected in week 1. The 6th graders hope to collect $1\frac{1}{2}$ times as many bags of canned goods. Match each class to the number of bags of canned goods they hope to collect next week.

Class	Next Week's Goal (bags)
4 th Graders •	• $4\frac{13}{16}$
5 th Graders •	• $4\frac{7}{8}$
6 th Graders •	• $4\frac{2}{3}$





Name _____

1. A builder has an 8-acre plot divided into $\frac{1}{4}$ -acre home sites. How many $\frac{1}{4}$ -acre home sites are there?

There are home sites.

2. For numbers 2a–2e, select Yes or No to indicate whether each equation is correct.

2a. $3 \div \frac{1}{4} = \frac{1}{12}$ Yes No

2b. $7 \div \frac{1}{2} = 14$ Yes No

2c. $\frac{1}{5} \div 4 = 20$ Yes No

2d. $\frac{1}{2} \div 5 = \frac{1}{10}$ Yes No

2e. $\frac{1}{7} \div 3 = 21$ Yes No

3. Choose the numbers to create a story problem that represents $4 \div \frac{1}{6}$.

Bill bought pound(s) of cheese.

He made grilled cheese sandwiches and used pound(s) of cheese in each sandwich.

Bill made 24 sandwiches.



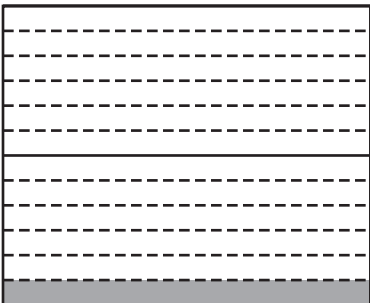

4. Divide. Draw a number line to show your work.

$2 \div \frac{1}{3} =$

Name _____

5. Adan has $\frac{1}{2}$ quart of milk. If he pours the same amount of milk into 3 glasses, each glass will contain quart of milk.

6. Brendan made a loaf of bread. He gave equal portions of $\frac{1}{2}$ of the loaf of bread to 6 friends. Which diagram could Brendon use to find the fraction of the loaf of bread that each friend received? Mark all that apply.

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

7. Landon and Colin bought $\frac{1}{2}$ pound of strawberries. They are sharing the strawberries equally. Each person will receive pound of strawberries.





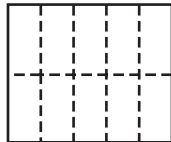
Name _____

1. Gabriel made 4 small meatloaves. He cut each meatloaf into fourths. How many $\frac{1}{4}$ -size pieces of meatloaf does Gabriel have? Draw lines in the model to find the answer.



Gabriel has $\frac{1}{4}$ -size pieces of meatloaf.

2. Camilla has a $\frac{1}{2}$ pound of raisins that she will divide evenly into 5 bags. Shade the diagram to show the fractional part of a pound that will be in each bag.



3. A 6-mile walking trail has a distance marker every $\frac{1}{3}$ mile. How many markers are along the trail?

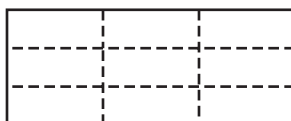
There are _____ markers along the trail.

4. Eric has 4 pieces of clay. He cut each piece of clay into thirds. How many $\frac{1}{3}$ -size pieces of clay does Eric have? Draw lines in the model to find the answer.



Eric has _____ $\frac{1}{3}$ -size pieces of clay.

5. Cecilia has $\frac{1}{3}$ pound of trail mix that she will divide equally into 3 bags. Shade the diagram to show the fractional part of a pound that will be in each bag.



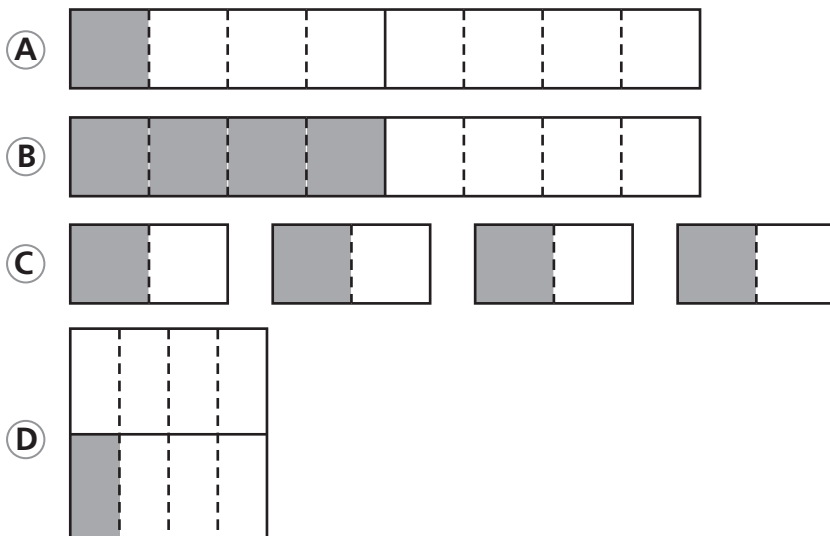
Name _____

6. Adrian made 3 granola bars. He cut each bar into fourths. How many $\frac{1}{4}$ -size pieces of granola bar does Adrian have? Draw lines in the model to find the answer.



Adrian has _____ one-quarter-size pieces of granola bar.

7. Kyle made a loaf of banana bread. He gave equal portions of $\frac{1}{2}$ of the loaf to 4 friends. Which diagram could Kyle use to find the fraction of the loaf that each friend received? Mark all that apply.



8. Ben is making bread that calls for 5 cups of flour. His measuring cup only holds $\frac{1}{2}$ cup. How many times will Ben need to fill the measuring cup to get the 5 cups of flour?

9. Tina has $\frac{1}{2}$ quart of iced tea. She pours the same amount into each of 3 glasses. Which equation represents the fraction of a quart of iced tea that is in each glass? Mark all that apply.

- (A) $\frac{1}{2} \div \frac{1}{3} = n$ (C) $2 \div \frac{1}{3} = n$ (E) $2 \times \frac{1}{3} = n$
 (B) $2 \div 3 = n$ (D) $\frac{1}{2} \times \frac{1}{3} = n$ (F) $\frac{1}{2} \div 3 = n$



Name _____

Practice Test



5.NF.7c

Apply and extend previous understandings of multiplication and division to multiply and divide fractions.

1. Maureen has $\frac{1}{4}$ pound of raisins. She divides the raisins into 4 servings. Each serving contains pound of raisins.

2. A giant tortoise can walk about $\frac{1}{10}$ meter per second on land. A cooter turtle can walk about $\frac{1}{2}$ meter per second on land.

Part A

How long would it take a giant tortoise to travel 5 meters?
Show your work.

Part B

How much longer would it take a giant tortoise than a cooter turtle to travel 10 meters on land? Explain how you found your answer.

3. Dora buys one package each of 1-pound, 2-pound, and 4-pound packages of ground beef to make hamburgers.

How many $\frac{1}{4}$ -pound hamburgers can she make?
Show your work using words, pictures, or numbers.



Name _____

4. Mrs. Green wrote the following problem on the whiteboard:

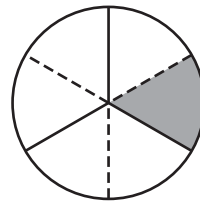
Lisa and Frank shared $\frac{1}{3}$ pound of cherries equally. What fractional part of a pound did each person receive?

Part A

Molly wrote the following equation to solve the problem: $2 \div \frac{1}{3} = n$. Do you agree with Molly's equation? Support your answer with information from the problem.

Part B

Noah drew this diagram to solve the problem. Can Noah use his diagram to find the fractional part of a pound of cherries that each person received? Support your answer with information from the problem.



5. Kayleigh has $\frac{1}{4}$ -cup of oil. She pours the same amount into each of 2 oil lamps. Which equation represents the fraction of a cup of oil that is in each oil lamp? Mark all that apply.

- Ⓐ $\frac{1}{2} \div \frac{1}{4} = n$
 Ⓑ $\frac{1}{4} \times \frac{1}{2} = n$
 Ⓒ $2 \div \frac{1}{4} = n$
 Ⓓ $4 \div 2 = n$
 Ⓔ $\frac{1}{4} \div 2 = n$
 Ⓕ $2 \times \frac{1}{4} = n$



Name _____

Practice Test



5.MD.1

Convert like measurement units within a given measurement system.

1. The library is 5 miles from the post office. How many yards is the library from the post office?

_____ yards

2. Billy made 3 gallons of juice for a picnic. He said that he made $\frac{3}{4}$ quart of juice. Explain Billy's mistake.

3. The Drama Club is showing a video of their recent play. The first showing begins at 2:30 P.M. The second showing is scheduled at 5:25 P.M. with a $\frac{1}{2}$ -hour break between the showings.

Part A

How long is the video in hours and minutes?

_____ hours and _____ minutes

Part B

Explain how you can use a number line to find the answer.

Part C

The second showing started 20 minutes late. Will the second showing be over by 7:45 P.M.? Explain why your answer is reasonable.



Name _____

4. Fred bought 4 liters of liquid laundry detergent, 3,250 milliliters of fabric softener, and 2.5 liters of bleach. For numbers 4a–4e, select Yes or No.

- 4a. Fred bought 75 milliliters more fabric softener than bleach. Yes No
- 4b. Fred bought 1.75 liters more laundry detergent than bleach. Yes No
- 4c. Fred bought 750 milliliters more fabric softener than bleach. Yes No
- 4d. Fred bought 150 milliliters more laundry detergent than bleach. Yes No
- 4e. Fred bought 0.75 liters more laundry detergent than fabric softener. Yes No

5. A male hippopotamus can weigh up to 10,000 pounds. How many tons is 10,000 pounds?

_____ tons

6. Amar and his friends went to a movie at 4:45 P.M. The movie ended at 6:20 P.M.

Part A

How long was the movie?

_____ hour(s) and _____ minutes

Part B

Amar got home 45 minutes after the movie ended. What time did Amar get home? Explain how you found your answer.



Name _____

Practice Test



5.MD.2

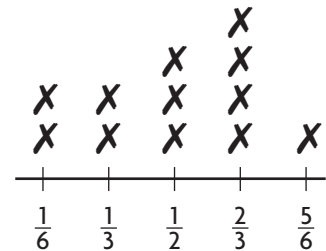
Represent and interpret data.

1. A builder is buying property to build new houses. The sizes of the lots are $\frac{1}{6}$, $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{2}$, $\frac{1}{6}$, $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{6}$, $\frac{1}{2}$, $\frac{1}{6}$, $\frac{1}{6}$, and $\frac{1}{3}$ acre. Organize the information in a line plot.

What is the average size of the lots?

_____ acre

2. The line plot shows the weights of bags of beans. What is the average weight of the bags? Show your work.



Weights of Bags of Beans (in lb)

3. Amy filled bags with mixed nuts. The weights of the bags are $\frac{1}{8}$ -lb, $\frac{1}{4}$ -lb, $\frac{1}{8}$ -lb, $\frac{1}{2}$ -lb, $\frac{1}{8}$ -lb, $\frac{1}{4}$ -lb, $\frac{1}{8}$ -lb, $\frac{1}{2}$ -lb, $\frac{1}{8}$ -lb, $\frac{1}{4}$ -lb, $\frac{1}{8}$ -lb, $\frac{1}{2}$ -lb, $\frac{1}{8}$ -lb, $\frac{1}{4}$ -lb, and $\frac{1}{2}$ -lb. Organize the information in a line plot.

What is the average weight of the bags?

_____ pound(s)

GO ON

Name _____

4. The line plot shows the weights of stones found in a stream. What is the average weight of the stones? Show your work.

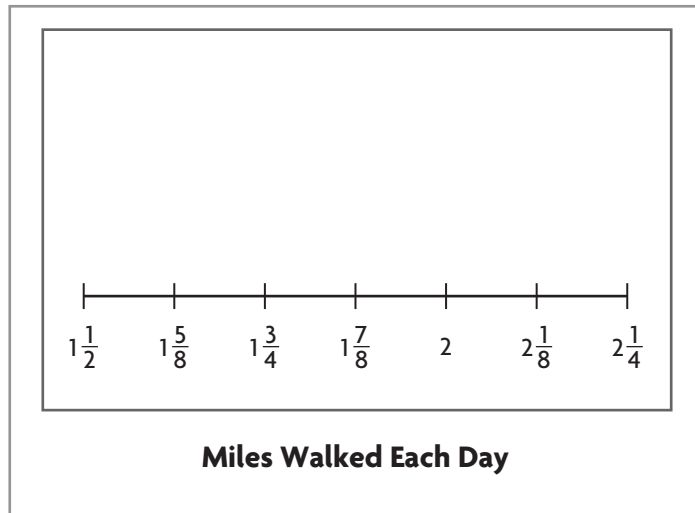


5. Mika records the number of miles she walks each day.

Part A

Graph Mika's results on the line plot.

Distance (miles)	Days
$1\frac{1}{2}$	
$1\frac{5}{8}$	
$1\frac{3}{4}$	
2	
$2\frac{1}{8}$	
$2\frac{1}{4}$	



Part B

How many days did she walk and what was her total distance? Explain your thinking.



Name _____

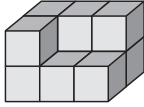
Practice Test



5.MD.3a

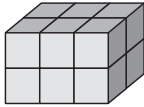
Geometric measurement: understand concepts of volume and relate volume to multiplication and to addition.

1. Match the figure with the number of unit cubes that would be needed to build each figure. Not every number of unit cubes will be used.



•

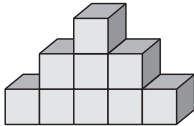
• 8 unit cubes



•

• 9 unit cubes

• 10 unit cubes



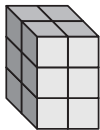
•

• 11 unit cubes

• 12 unit cubes

• 16 unit cubes

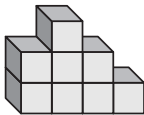
2. Match the figure with the number of unit cubes that would be needed to build each figure. Not every number of unit cubes will be used.



•

• 6 unit cubes

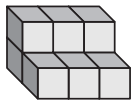
• 7 unit cubes



•

• 8 unit cubes

• 9 unit cubes

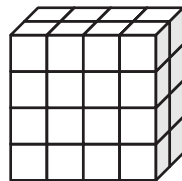


•

• 10 unit cubes

• 12 unit cubes

3. Bakari builds a rectangular prism using unit cubes.

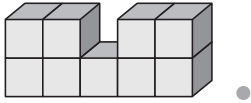


What is the volume of the prism? Explain your thinking.

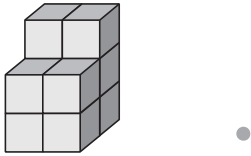
GO ON

Name _____

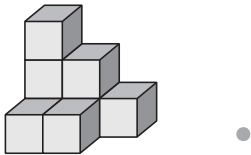
4. Match the figure with the number of unit cubes that would be needed to build each figure. Not every number of unit cubes will be used.



• 7 unit cubes



• 8 unit cubes



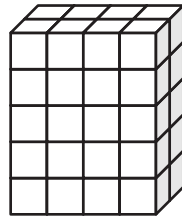
• 9 unit cubes

• 10 unit cubes

• 12 unit cubes

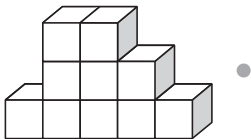
• 15 unit cubes

5. Joo-Chan builds a rectangular prism using unit cubes.



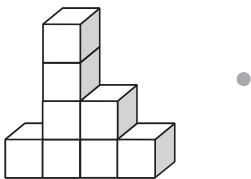
What is the volume of the prism? Explain your thinking.

6. Match the figure with the number of unit cubes that would be needed to build each figure. Not every number of unit cubes will be used.



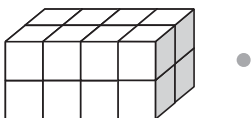
• 8 unit cubes

• 9 unit cubes



• 10 unit cubes

• 11 unit cubes



• 12 unit cubes

• 16 unit cubes



Name _____

Practice Test



5.MD.3b

Geometric measurement: understand concepts of volume and relate volume to multiplication and to addition.

- 1.** A shipping crate holds 20 shoeboxes. The dimensions of a shoebox are 6 inches by 4 inches by 12 inches. For numbers 1a–1c, select Yes or No to indicate whether each statement is correct.
- 1a. Each shoebox has a volume of 22 cubic inches. Yes No
- 1b. Each crate has a volume of about 440 cubic inches. Yes No
- 1c. If the crate could hold 27 shoeboxes the volume of the crate would be about 7,776 cubic inches. Yes No
- 2.** A pack of folders has a length of 5 inches, a width of 12 inches, and a height of 1 inch. The pack of folders will be shipped in a box that holds 12 packs of folders. For numbers 2a–2c, select Yes or No to indicate whether the statement is correct.
- 2a. Each pack of folders has a volume of 60 cubic inches. Yes No
- 2b. The box has a volume of about 720 cubic inches. Yes No
- 2c. If the box held 15 packs of folders, it would have a volume of about 1,200 cubic inches. Yes No
- 3.** A shipping crate holds 18 books. The dimensions of each book are 2 inches by 8 inches by 10 inches. For numbers 3a–3c, select Yes or No to indicate whether each statement is correct.
- 3a. Each book has a volume of 20 cubic inches. Yes No
- 3b. Each crate has a volume of about 2,880 cubic inches. Yes No
- 3c. If the crate could hold 24 books the volume of the crate would be about 3,840 cubic inches. Yes No

GO ON 

Name _____

4. A shipping container holds 40 tissue boxes. The dimensions of a tissue box are 4 inches by 6 inches by 3 inches. For numbers 4a–4c, select Yes or No to indicate whether each statement is correct.

- 4a. Each tissue box has a volume of 72 cubic inches. Yes No
- 4b. Each container has a volume of about 1,440 cubic inches. Yes No
- 4c. If a container could hold 48 tissue boxes, the volume of the container would be about 624 cubic inches. Yes No

5. A shipping container holds 40 gift boxes. The dimensions of a gift box are 4 inches by 5 inches by 2 inches. For numbers 5a–5c, select Yes or No to indicate whether each statement is correct.

- 5a. Each gift box has a volume of 40 cubic inches. Yes No
- 5b. Each container has a volume of about 1,600 cubic inches. Yes No
- 5c. If a container could hold 50 tissue boxes, the volume of the container would be about 1,000 cubic inches. Yes No

6. Miranda has cubes that measure 4 inches on each side. Which of the statements are true? Mark all that apply.

- A The volume of one cube is 48 cubic inches.
- B If Miranda fills a box with 12 cubes, the volume of the box is about 768 cubic inches.
- C If the volume of the box is 800 cubic inches, Miranda can fit 14 cubes in the box.
- D If the volume of the box is 1,000 cubes, Miranda can fit 15 cubes in the box.



Name _____

Practice Test

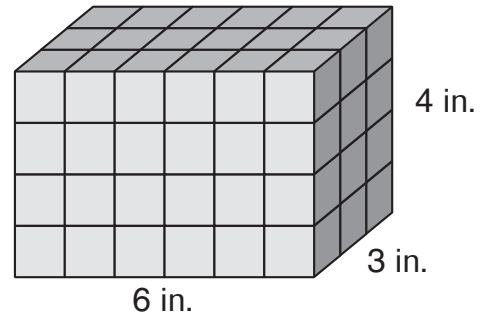


5.MD.4

Geometric measurement: understand concepts of volume and relate volume to multiplication and to addition.

1. Victoria used 1-inch cubes to build the rectangular prism shown. Find the volume of the rectangular prism Victoria built.

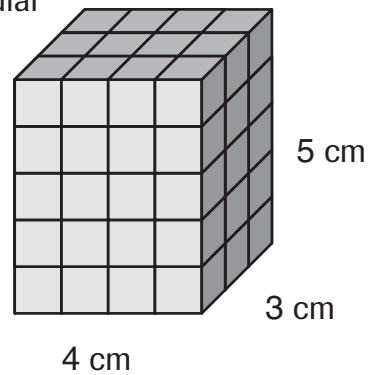
_____ cubic inches



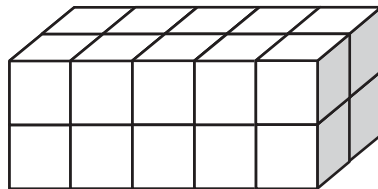
2. Carlton used 1-centimeter cubes to build the rectangular prism shown.

Find the volume of the rectangular prism Carlton built.

_____ cubic inches



3. Ryan built a rectangular prism out of cubes.



Part A

Find the volume of the prism.

Part B

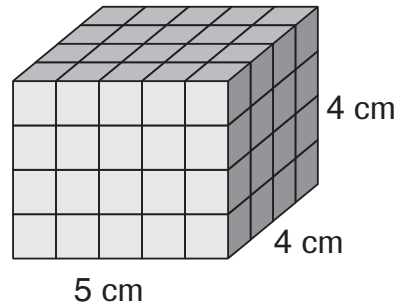
Ryan added 4 cubes to his prism. Calculate the volume.
How has the volume changed?

GO ON

Name _____

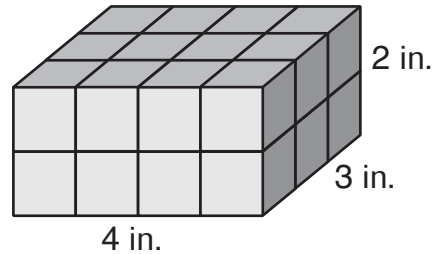
4. Wendy used 1-centimeter cubes to build the rectangular prism shown. Find the volume of the rectangular prism Wendy built.

_____ cubic centimeters

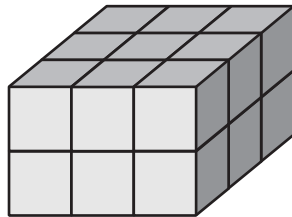


5. Carmen used 1-inch cubes to build the rectangular prism shown. Find the volume of the rectangular prism Carmen built.

_____ cubic inches



6. Julio built a rectangular prism out of cubes.



Part A

Find the volume of the prism.

Part B

Julio added 6 cubes to his prism. Calculate the volume.
How has the volume changed?



Name _____

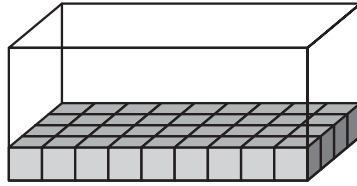
Practice Test



5.MD.5a

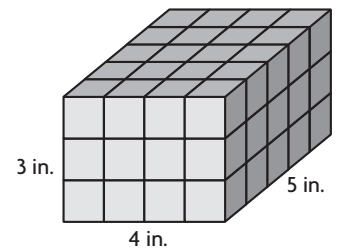
Geometric measurement: understand concepts of volume and relate volume to multiplication and to addition.

1. Mark packed 1-inch cubes into a box with a volume of 120 cubic inches. How many layers of 1-inch cubes did Mark pack?



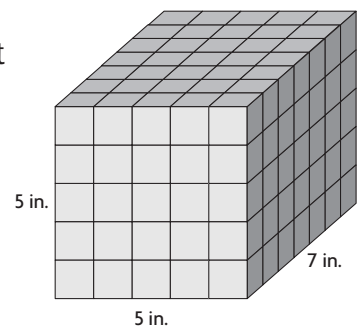
_____ layers

2. Monica used 1-inch cubes to make the rectangular prism shown. For numbers 2a–2d, write the value from the tiles that makes each statement true. Each value can be used more than once or not at all.



- 2a. Each cube has a volume of _____ cubic inch(es).
2b. Each layer of the prism is made up of _____ cubes.
2c. There are _____ layers of cubes.
2d. The volume of the prism is _____ cubic inches.

3. John used 1-inch cubes to make the rectangular prism shown. For numbers 3a–3d, write the value that makes each statement correct. Each value can be used more than once or not at all.

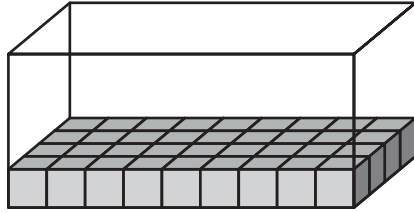


- 3a. Each cube has a volume of cubic inch(es).
3b. Each layer of the prism is made up of cubes.
3c. There are layers of cubes.
3d. The volume of the prism is cubic inches.

GO ON

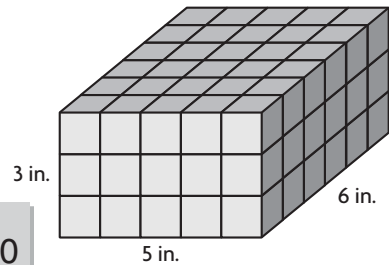
Name _____

4. Jessica packed 1-inch cubes into a box with a volume of 144 cubic inches. How many layers of 1-inch cubes did Jessica pack?



_____ layers

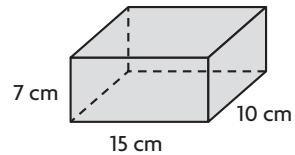
5. Donald used 1-inch cubes to make the rectangular prism shown. For numbers 5a–5d, write the value that makes each statement true. Each value can be used more than once or not at all.



- 1
- 3
- 5
- 6
- 14
- 30
- 90
- 120

- 5a. Each cube has a volume of _____ cubic inch(es).
- 5b. Each layer of the prism is made up of _____ cubes.
- 5c. There are _____ layers of cubes.
- 5d. The volume of the prism is _____ cubic inches.

6. Manuel stores his favorite CDs in a box like the one shown.



Use the numbers and symbols on the tiles to write a formula that represents the volume of the box. Symbols may be used more than once or not at all.

- V
- 7
- 10
- 15
- =
- +
- ×
- −
- ÷

What is the volume of the box? _____ cubic centimeters



Name _____

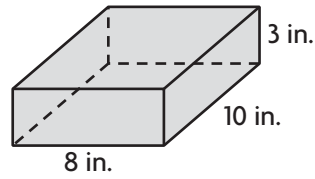
Practice Test



5.MD.5b

Geometric measurement: understand concepts of volume and relate volume to multiplication and to addition.

1. Jose stores his baseball cards in a box like the one shown.



Use the numbers and symbols on the tiles to write a formula that represents the volume of the box. Symbols may be used more than once or not at all.



What is the volume of the box? _____ cubic inches

2. Megan's aquarium has a volume of 4,320 cubic inches. Which could be the dimensions of the aquarium? Mark all that apply.

- (A) 16 in. by 16 in. by 18 in. (C) 12 in. by 15 in. by 24 in.
 (B) 14 in. by 18 in. by 20 in. (D) 8 in. by 20 in. by 27 in.

3. Ken keeps paper clips in a box that is the shape of a cube. Each side of the cube is 3 inches. What is the volume of the box?

_____ cubic inches

4. Tom keeps sticky notes in a box that is the shape of a cube. Each side of the box is 4 inches. What is the volume of the box?

_____ cubic inches

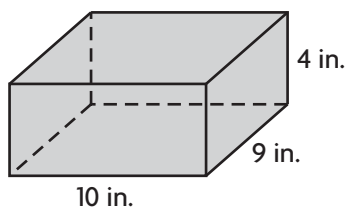
GO ON

Name _____

5. Dakota's wading pool has a volume of 8,640 cubic inches. Which could be the dimensions of the wading pool? Mark all that apply.

- Ⓐ 24 in. by 30 in. by 12 in.
 Ⓑ 27 in. by 32 in. by 10 in.
 Ⓒ 28 in. by 31 in. by 13 in.
 Ⓓ 30 in. by 37 in. by 18 in.

6. Erin stores her photos in a box like the one shown.



Use the numbers and symbols on the tiles to write a formula that represents the volume of the box. Symbols may be used more than once or not at all.



What is the volume of the box?

_____ cubic inches

7. A shipping container has a volume of 2,880 cubic inches. Which could be the dimensions of the container? Mark all that apply.

- Ⓐ 10 in. by 12 in. by 24 in. Ⓒ 12 in. by 15 in. by 18 in.
 Ⓑ 12 in. by 12 in. by 20 in. Ⓓ 10 in. by 16 in. by 20 in.



Name _____

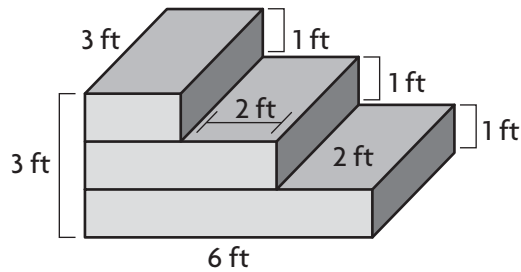
Practice Test



5.MD.5c

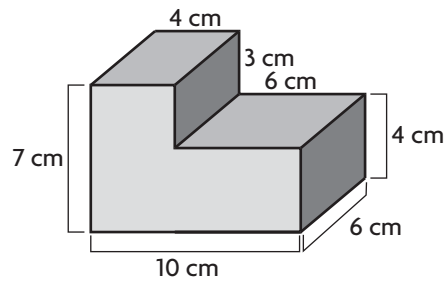
Geometric measurement: understand concepts of volume and relate volume to multiplication and to addition.

1. What is the volume of the composite figure?



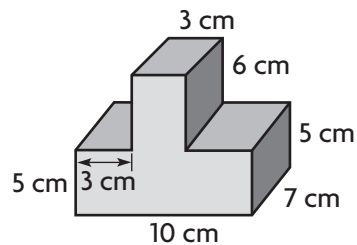
_____ cubic feet

2. A composite figure is shown. What is the volume of the composite figure?



Volume = _____ cubic centimeters

3. A composite figure is shown. What is the volume of the composite figure?

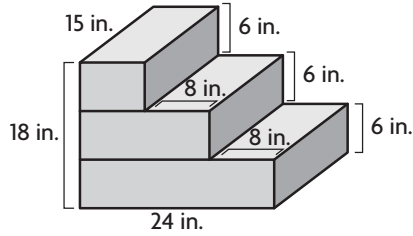


Volume = _____ cubic centimeters

GO ON

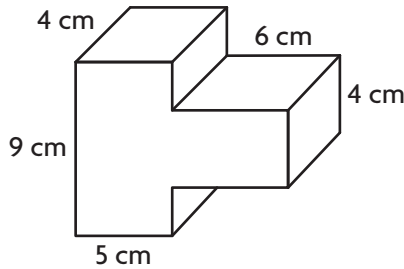
Name _____

4. What is the volume of the composite figure?



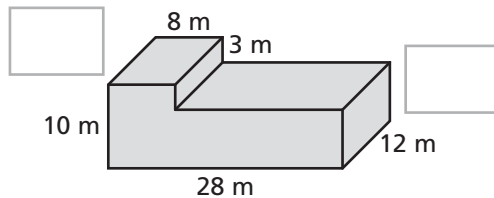
_____ cubic inches

5. A composite figure is shown. What is the volume of the composite figure?



Volume = _____ cubic centimeters

6. Write the missing dimensions of the figure. Then use a formula and calculate the volume of the figure.



Name _____

Practice Test

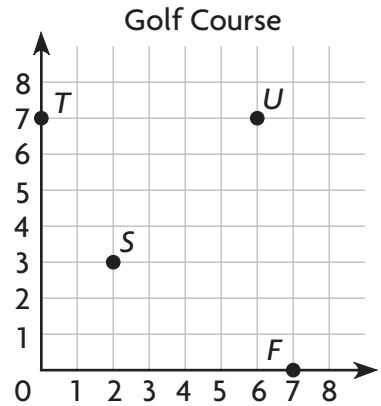


5.G.1

Graph points on the coordinate plane to solve real-world and mathematical problems.

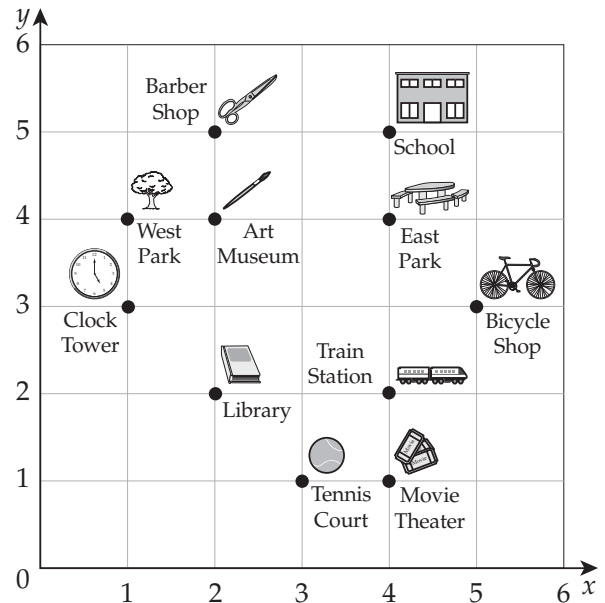
1. The letters on the coordinate grid represent the locations of the first four holes on a golf course. Which of the following accurately describes the location of a hole? Mark all that apply.

- (A) Hole *U* is 4 units left and 4 units down from hole *S*.
- (B) Hole *F* is 1 unit right and 7 units down from hole *U*.
- (C) Hole *T* is 2 units left and 4 units up from hole *S*.
- (D) Hole *S* is 3 units left and 5 units up from hole *F*.



2. Lindsey made a map of her town. Match each location below with the correct ordered pair that marks it on the coordinate grid. Not every ordered pair will be used.

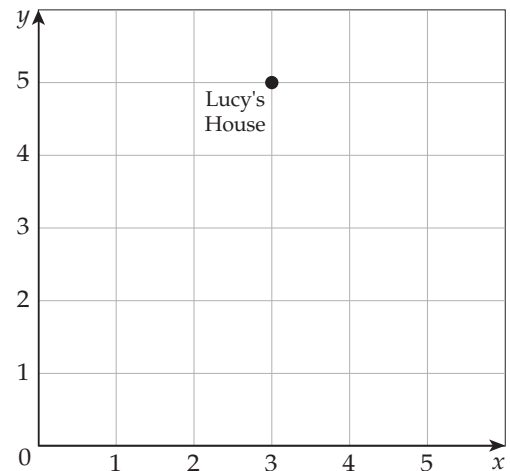
- | | |
|-----------------|----------|
| Clock Tower ● | ● (4, 4) |
| | ● (4, 1) |
| Art Museum ● | ● (1, 3) |
| | ● (5, 4) |
| East Park ● | ● (4, 5) |
| | ● (3, 1) |
| Movie Theater ● | ● (2, 4) |
| | ● (1, 4) |
| School ● | ● (4, 2) |



3. Lucy's house is located at the point shown on the coordinate grid. Ainsley's house is located 2 units right and 3 units down from Lucy's house. Plot a point on the coordinate grid to represent the location of Ainsley's house.

What ordered pair represents the location of Lucy's house?

What ordered pair represents the location of Ainsley's house?

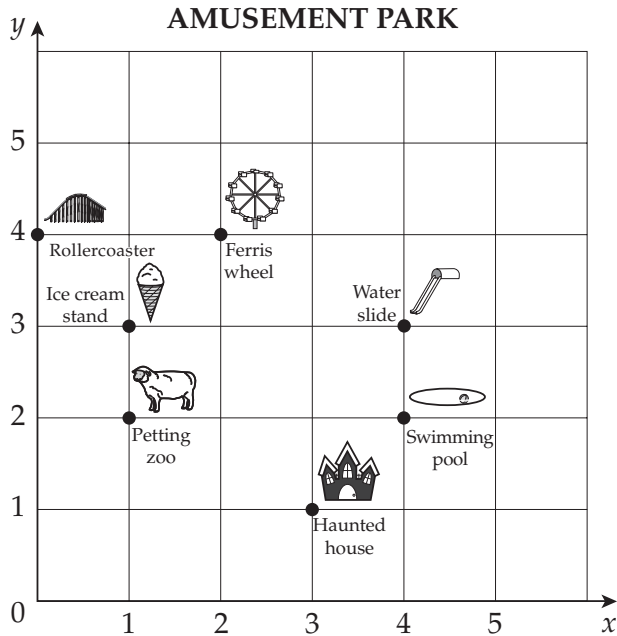


GO ON

Name _____

4. The map shows the locations of attractions at an amusement park. Match each location below with the correct ordered pair that marks it on the map. Not every ordered pair will be used.

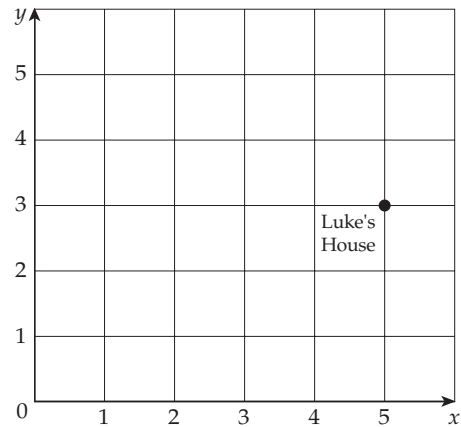
- Ferris Wheel ● ● (0, 4)
- Swimming Pool ● ● (2, 4)
- Rollercoaster ● ● (4, 3)
- Petting Zoo ● ● (4, 0)
- Water Slide ● ● (4, 2)
- (1, 2)



5. Luke's house is located at the point shown on the coordinate grid. Kyle's house is located 4 units left and 2 units up from Luke's house. Plot a point on the coordinate grid to represent the location of Kyle's house.

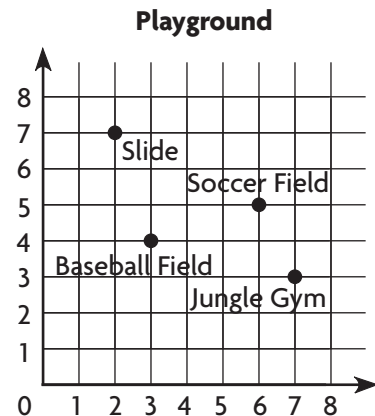
What ordered pair represents the location of Luke's house?

What ordered pair represents the location of Kyle's house?



6. The coordinate grid represents the school playground. Which of the following accurately describes the location of a playground area? Mark all that apply.

- A The slide is 2 units left and 4 units up from the soccer field.
- B The baseball field is 1 unit left and 3 units down from the slide.
- C The jungle gym is 4 units right and 1 unit down from the baseball field.
- D The soccer field is 3 units right and 1 unit up from the baseball field.



Name _____

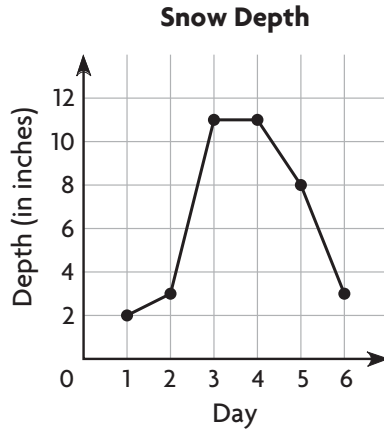
Practice Test



5.G.2

Graph points on the coordinate plane to solve real-world and mathematical problems.

1. For 6 days in a row, Julia measured the depth of the snow in a shaded area of her backyard. The line graph shows her data. Between which two days did the depth of the snow decrease the most?



between Day and Day

2. The table shows how much a puppy weighs from 1 month old to 5 months old.

Puppy's Weight					
Age (in months)	1	2	3	4	5
Weight (in pounds)	12	18	23	31	34

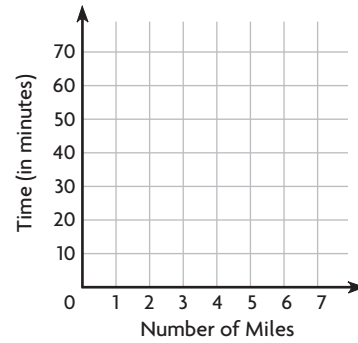
What ordered pairs would you plot to show the puppy's weight on a coordinate grid? How do you think the ordered pairs would be different if the puppy's weight was measured every week instead of every month? Explain your reasoning.



Name _____

3. Randy is training for a race. She makes a table that shows how long it takes her to run different distances.

Running Time and Distance				
Number of Miles	1	2	3	4
Time (in minutes)	10	20	30	40



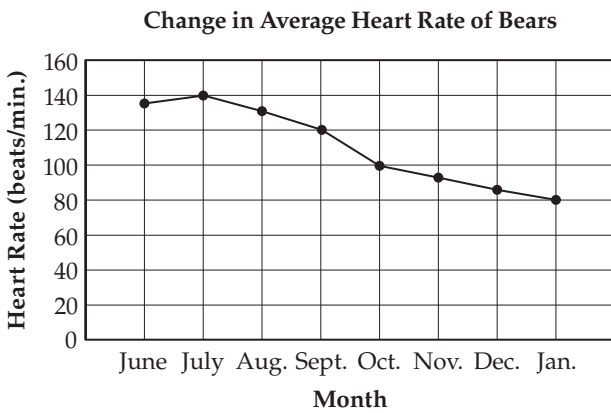
Part A

Write the number pairs as ordered pairs. Then write the rule to describe how the number pairs are related.

Part B

Graph the ordered pairs on the coordinate plane.

4. A scientist made a line graph that shows how a bear’s average heart rate changes over time.



For numbers 4a–4c, select Yes or No to indicate whether each statement is correct.

- 4a. The bear’s heart rate is at its highest in July. Yes No
- 4b. The bear’s average heart rate increases by 10 beats per minute from July to August. Yes No
- 4c. The bear’s heart rate is at its lowest in January. Yes No



Name _____

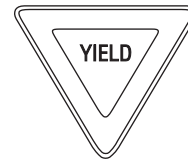
Practice Test



5.G.3

Classify two-dimensional figures into categories based on their properties.

1. Mr. Delgado sees this sign while he is driving. For numbers 1a–1b, choose the values and term that correctly describes the shape Mr. Delgado saw.



1a. The figure has

3
4
5

 sides and

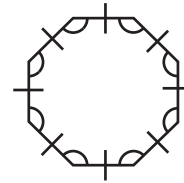
0
2
3

 vertices.

1b. All of the sides are congruent, so the figure is

not a polygon
a regular polygon
not a regular polygon

2. Javier drew the shape shown. For numbers 2a–2b, choose the values and term that correctly describe the shape Javier drew.



2a. The figure has

6
7
8

 sides and

6
8
12

 angles.

2b. The figure is a

regular octagon
regular heptagon
regular quadrilateral

.

3. For numbers 3a–3c, write the name of one quadrilateral from the tiles to complete a true statement. Use each quadrilateral once only.

3a. A

--

 is always a parallelogram.

square

3b. A

--

 is always a rhombus.

trapezoid

3c. A

--

 is never a parallelogram.

rectangle

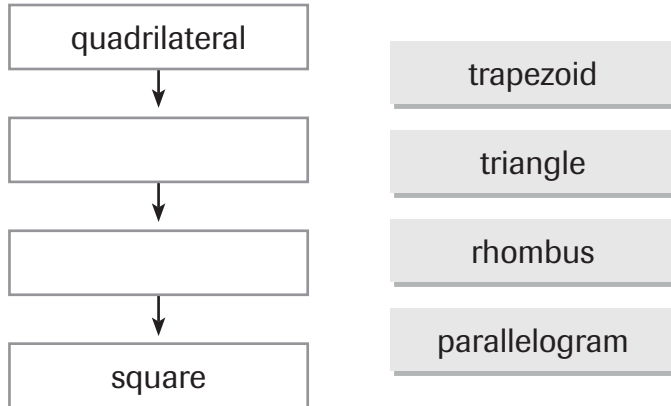
GO ON

Name _____

4. Mario is making a diagram that shows the relationship between different kinds of quadrilaterals. In the diagram, each quadrilateral on a lower level can also be described by the quadrilateral(s) above it on higher levels.

Part A

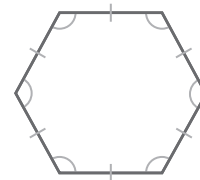
Complete the diagram by writing the name of one figure from the tiles in each box. Not every figure will be used.



Part B

Mario claims that a rhombus is *sometimes* a square, but a square is *always* a rhombus. Is he correct? Explain your answer.

5. Kayla drew the shape shown. For numbers 5a–5b, choose the values and term that correctly describe the shape Kayla drew.



- 5a. The figure has

4
6
12

 sides and

4
6
8

 angles.

- 5b. The figure is a

regular heptagon
regular pentagon
regular hexagon

.



Name _____

Practice Test



5.G.4

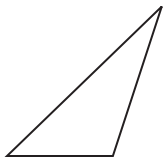
Classify two-dimensional figures into categories based on their properties.

1. Fran drew a triangle with no congruent sides and 1 right angle. Which term accurately describes the triangle? Mark all that apply.

- (A) isosceles (C) acute
 (B) scalene (D) right

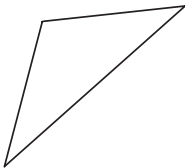
2. Nathan drew a scalene, obtuse triangle. For 2a–2c, choose Yes or No to indicate whether the figure shown could be the triangle that Nathan drew.

2a.



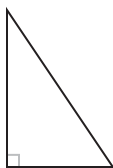
- Yes No

2b.



- Yes No

2c.



- Yes No

3. Kelly drew a triangle with exactly 2 congruent sides and 3 acute angles. Which of the following accurately describes the triangle? Mark all that apply.

- (A) isosceles (C) obtuse
 (B) acute (D) equilateral

GO ON

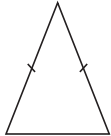
Name _____

4. Kristin drew a triangle with 2 congruent sides and 1 obtuse angle. Which term accurately describes the triangle? Mark all that apply.

- (A) isosceles (C) acute
 (B) scalene (D) obtuse

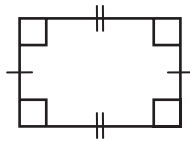
5. Natalie drew an acute, isosceles triangle. For 5a–5c, choose Yes or No to indicate whether the figure shown could be the triangle that Natalie drew.

- 5a.  Yes No

- 5b.  Yes No

- 5c.  Yes No

6. For numbers 6a–6f, choose Yes or No to indicate whether the name applies to the polygon.



- 6a. quadrilateral Yes No
 6b. rectangle Yes No
 6c. square Yes No
 6d. parallelogram Yes No
 6e. rhombus Yes No
 6f. trapezoid Yes No

