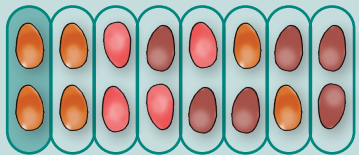


Lesson Activities 

A

Find a Fraction of a Set

Ex. Francis wants to split 16 candies into 8 equal groups. What is $\frac{1}{8}$ of 16?

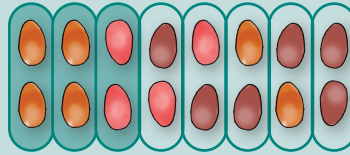


$$16 \div 8 = 2$$

$\frac{1}{8}$ of 16 equals 2.

Each group has 2 candies.

Ex. Francis decides to keep 3 of the 8 equal groups for himself. What is $\frac{3}{8}$ of 16?

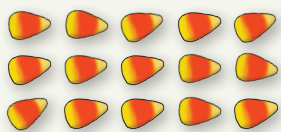


$$16 \div 8 = 2$$

$$3 \times 2 = 6$$

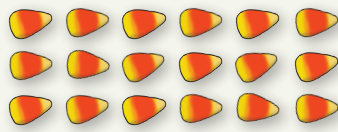
3 groups have 6 candies.

$\frac{3}{8}$ of 16 equals 6.



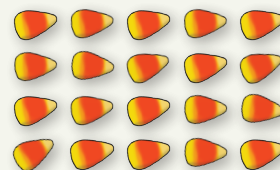
$$\frac{1}{3} \text{ of } 15 = \underline{\hspace{2cm}}$$

$$\frac{2}{3} \text{ of } 15 = \underline{\hspace{2cm}}$$



$$\frac{1}{6} \text{ of } 18 = \underline{\hspace{2cm}}$$

$$\frac{5}{6} \text{ of } 18 = \underline{\hspace{2cm}}$$



$$\frac{1}{10} \text{ of } 20 = \underline{\hspace{2cm}}$$

$$\frac{3}{10} \text{ of } 20 = \underline{\hspace{2cm}}$$

B

Spin a Set 

(2-Player Game)



of

55	20	40	15
5	50	35	60
30	25	10	45

Total

Player 1

Player 2

Practice



Complete.



$$\frac{1}{5} \text{ of } 10 = \underline{\hspace{2cm}}$$

$$\frac{2}{5} \text{ of } 10 = \underline{\hspace{2cm}}$$

$$\frac{3}{5} \text{ of } 10 = \underline{\hspace{2cm}}$$

$$\frac{4}{5} \text{ of } 10 = \underline{\hspace{2cm}}$$

$$\frac{5}{5} \text{ of } 10 = \underline{\hspace{2cm}}$$



$$\frac{1}{4} \text{ of } 12 = \underline{\hspace{2cm}}$$

$$\frac{2}{4} \text{ of } 12 = \underline{\hspace{2cm}}$$

$$\frac{3}{4} \text{ of } 12 = \underline{\hspace{2cm}}$$

$$\frac{4}{4} \text{ of } 12 = \underline{\hspace{2cm}}$$



$$\frac{1}{3} \text{ of } 21 = \underline{\hspace{2cm}}$$

$$\frac{2}{3} \text{ of } 21 = \underline{\hspace{2cm}}$$

$$\frac{3}{3} \text{ of } 21 = \underline{\hspace{2cm}}$$



$$\frac{1}{8} \text{ of } 16 = \underline{\hspace{2cm}}$$

$$\frac{5}{8} \text{ of } 16 = \underline{\hspace{2cm}}$$



$$\frac{1}{9} \text{ of } 9 = \underline{\hspace{2cm}}$$

$$\frac{4}{9} \text{ of } 9 = \underline{\hspace{2cm}}$$



$$\frac{1}{6} \text{ of } 12 = \underline{\hspace{2cm}}$$

$$\frac{3}{6} \text{ of } 12 = \underline{\hspace{2cm}}$$



$$\frac{1}{4} \text{ of } 16 = \underline{\hspace{2cm}}$$

$$\frac{3}{4} \text{ of } 16 = \underline{\hspace{2cm}}$$

$$\frac{0}{4} \text{ of } 16 = \underline{\hspace{2cm}}$$

$$\frac{4}{4} \text{ of } 16 = \underline{\hspace{2cm}}$$



$$\frac{1}{5} \text{ of } 15 = \underline{\hspace{2cm}}$$

$$\frac{3}{5} \text{ of } 15 = \underline{\hspace{2cm}}$$

$$\frac{0}{5} \text{ of } 15 = \underline{\hspace{2cm}}$$

$$\frac{5}{5} \text{ of } 15 = \underline{\hspace{2cm}}$$



$$\frac{1}{11} \text{ of } 11 = \underline{\hspace{2cm}}$$

$$\frac{8}{11} \text{ of } 11 = \underline{\hspace{2cm}}$$

$$\frac{0}{11} \text{ of } 11 = \underline{\hspace{2cm}}$$

$$\frac{11}{11} \text{ of } 11 = \underline{\hspace{2cm}}$$

Review

Write each fraction or mixed number in simplest form. If the fraction or mixed number is already in simplest form, circle it.

$$\frac{7}{28} =$$

$$\frac{16}{32} =$$

$$\frac{11}{24} =$$

$$2\frac{17}{30} =$$

$$3\frac{15}{20} =$$

$$1\frac{44}{55} =$$

Complete the chart.



Hours

1

Minutes

60

180

300

480

600

1,200

Solve. Write your answers in simplest form.

$$\frac{3}{6} - \frac{1}{6} = \frac{2}{6} = \frac{1}{3}$$

$$\frac{4}{9} + \frac{2}{9} =$$

$$\frac{1}{10} + \frac{3}{10} =$$

$$\frac{7}{8} - \frac{3}{8} =$$

$$\frac{11}{12} - \frac{2}{12} =$$

$$\frac{7}{12} - \frac{3}{12} =$$

Solve. Write the equations you use.

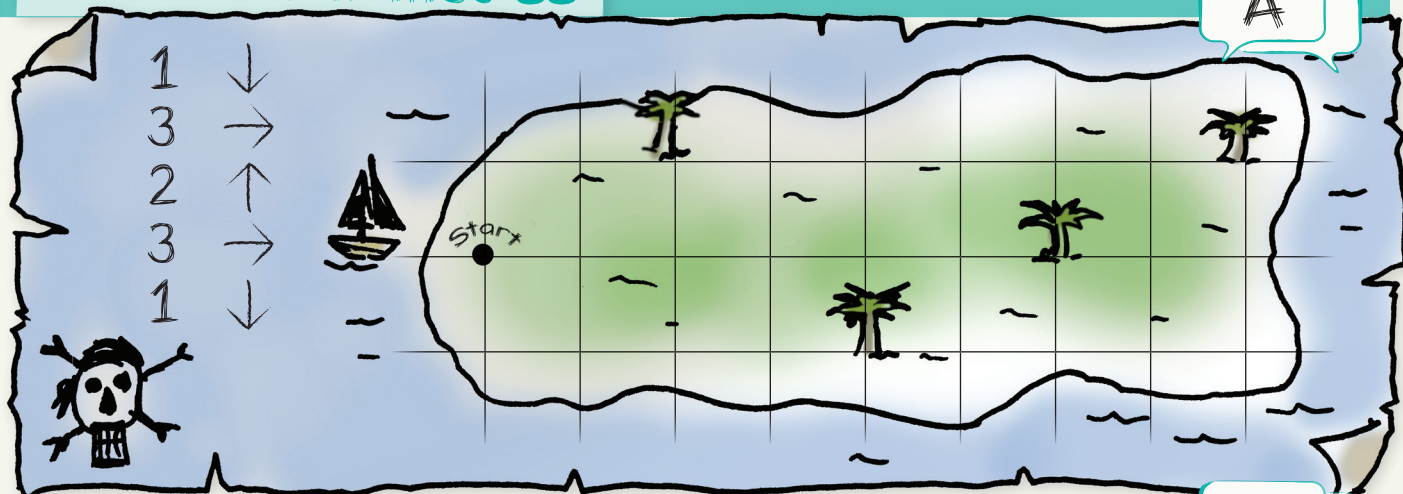
Bodie has 35 meters of rope. He cuts the rope into 5 equal pieces. Then, he uses 2 pieces to make a rope ladder. How many meters of rope does he use for the rope ladder?

Eliana has 100 fossils in her collection. She splits the fossils into 5 equal groups. Then, she puts 3 of the groups on a shelf. How many fossils are on the shelf?



Lesson Activities

A



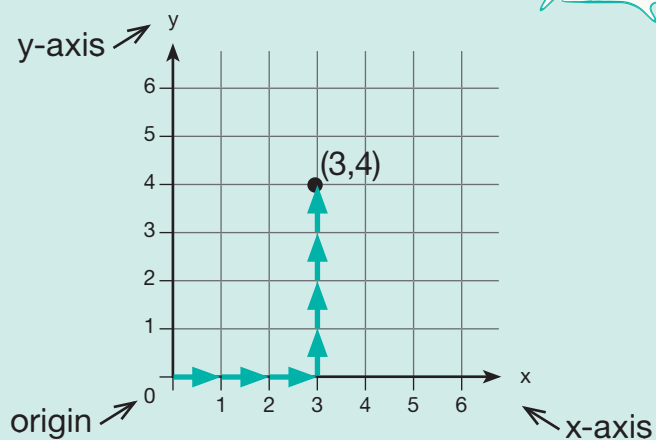
B

Ordered Pairs and the Coordinate Plane

$(3,4)$ is called an ordered pair. It tells a location on the coordinate plane.

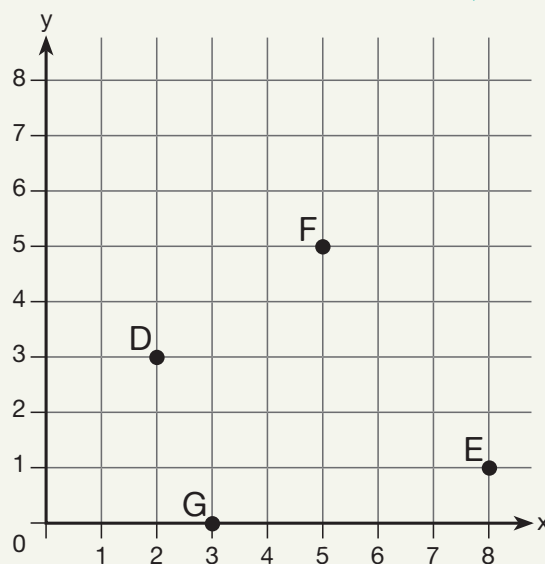
$(3,4)$
 ↗ ↖
 x-coordinate y-coordinate

The x-coordinate tells the horizontal distance from the origin. The y-coordinate tells the vertical distance from the origin.

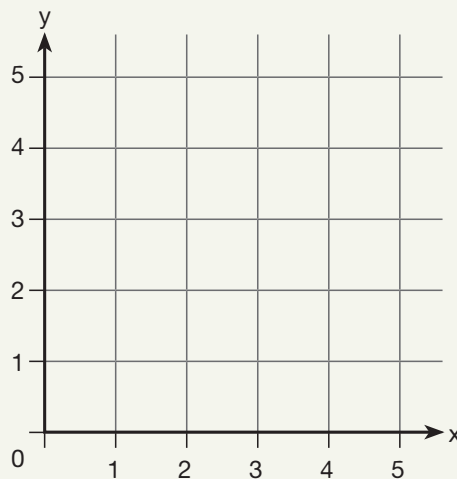
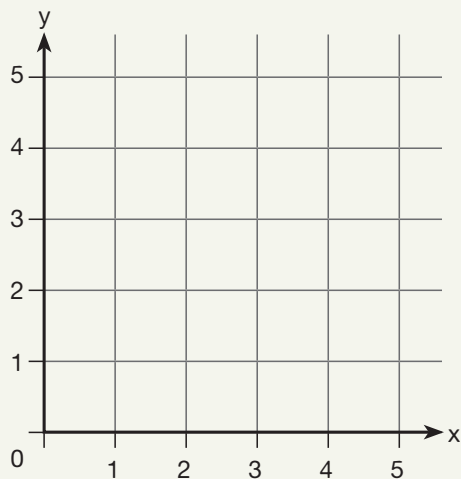


C

Point	Ordered Pair
A	$(1,6)$
B	$(5,8)$
C	$(0,4)$
D	
E	
F	
G	



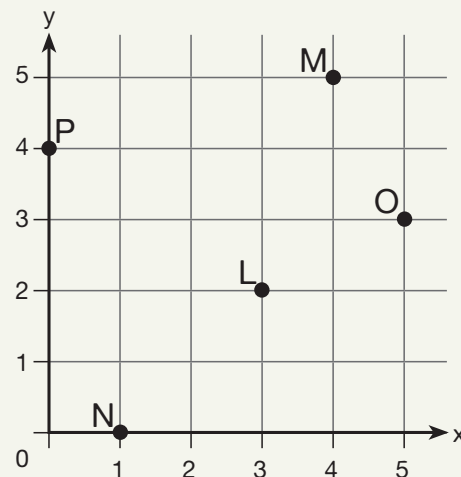
Hot and Cold (2-Player Game)



Practice

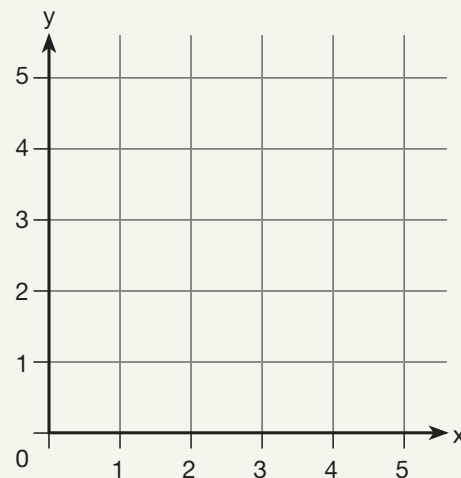
Write the ordered pair that describes the location of each point.

Point	Ordered Pair
L	(3,2)
M	
N	
O	
P	



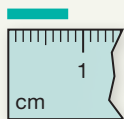
Draw and label each point in the correct location on the coordinate plane.

Point	Ordered Pair
Q	(2,4)
R	(4,2)
S	(0,3)
T	(3,0)
U	(5,1)



Review

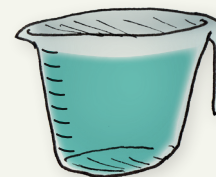
Write each measurement as a fraction.
Write your answers in simplest form.



$$8 \text{ mm} = \underline{\hspace{2cm}} \text{ cm}$$



$$8 \text{ in.} = \underline{\hspace{2cm}} \text{ ft.}$$



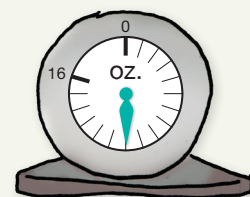
$$8 \text{ fl. oz.} = \underline{\hspace{2cm}} \text{ c.}$$



$$10 \text{ min.} = \underline{\hspace{2cm}} \text{ hr.}$$



$$10 \text{ cm} = \underline{\hspace{2cm}} \text{ m}$$



$$10 \text{ oz.} = \underline{\hspace{2cm}} \text{ lb.}$$

Complete the missing numbers.

$$5 + 4 = 10 - \underline{\hspace{2cm}}$$

$$12 - 8 = 16 \div \underline{\hspace{2cm}}$$

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

$$20 - \underline{\hspace{2cm}} = 6 \times 2$$

$$\underline{\hspace{2cm}} \div 5 = 15 + 5$$

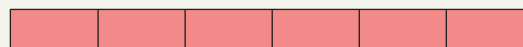
$$\underline{\hspace{2cm}} - 10 = 5 + 9$$

Find the product.

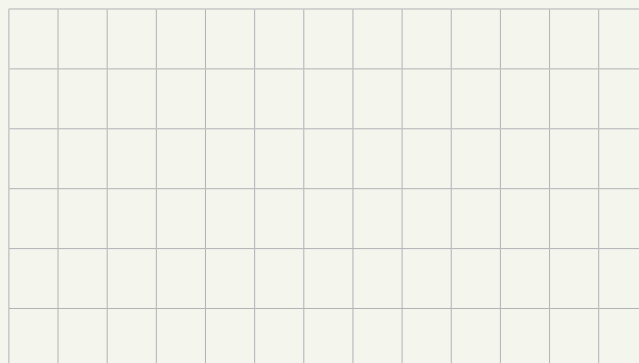
		4	2	5	
	x	2	1	3	

Use the bar model to solve.

In a survey, 10 people chose green as their favorite color. These 10 people were $\frac{1}{6}$ of all the people who answered the survey. How many people answered the survey?



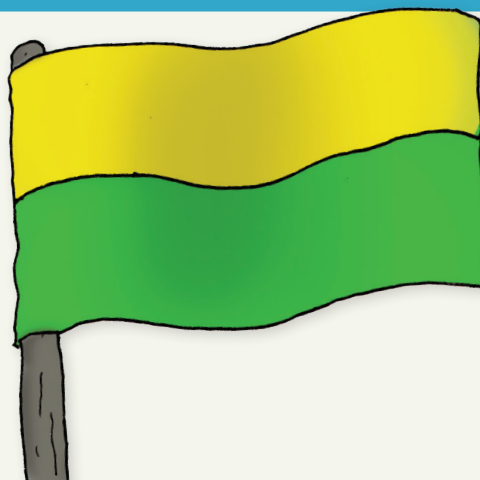
How many people did not choose green?



Unit Wrap-Up

Follow the directions to color the flag and answer the questions.

- Draw stars on $\frac{1}{3}$ of the yellow stripe.
What fraction of the flag has stars?
- Draw dots on $\frac{1}{2}$ of the green stripe.
What fraction of the flag has dots?



Write a multiplication problem to match. Then, solve.
Write the product in simplest form.

$$\frac{1}{3} \text{ of } \frac{9}{10}$$

$$\frac{3}{4} \text{ of } \frac{4}{5}$$

$$\frac{1}{2} \text{ of } \frac{5}{6}$$

Complete the missing numbers in the multiplication equations.

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

$$\frac{1}{\square} \times \frac{\square}{10} = \frac{7}{20}$$

$$\frac{\square}{3} \times \frac{5}{\square} = \frac{5}{24}$$

$$\frac{\square}{3} \times \frac{4}{\square} = \frac{4}{15}$$

$$\frac{3}{\square} \times \frac{2}{5} = \frac{\square}{25}$$

$$\frac{1}{6} \times \frac{\square}{\square} = \frac{1}{36}$$

Use logical reasoning to complete the circles with $<$, $>$, or $=$.
(You do not need to find the answers to the problems.)

$$\frac{1}{5} \times \frac{1}{4} \bigcirc \frac{1}{5} \times \frac{3}{4}$$

$$\frac{3}{5} \times \frac{3}{4} \bigcirc \frac{4}{5} \times \frac{3}{4}$$

$$\frac{1}{2} \times \frac{1}{8} \bigcirc \frac{1}{2} \times \frac{5}{6}$$

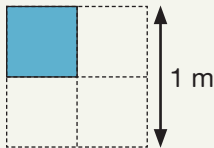
$$\frac{2}{3} \times \frac{1}{2} \bigcirc \frac{1}{2} \times \frac{2}{3}$$

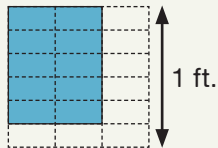
$$\frac{1}{4} \times \frac{8}{8} \bigcirc \frac{1}{4} \times \frac{3}{8}$$

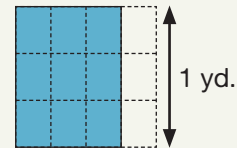
$$\frac{7}{10} \times \frac{0}{4} \bigcirc \frac{7}{10} \times \frac{4}{4}$$

Unit Wrap-Up 

Label the dimensions of each rectangle.
Then, use the dimensions to find the area.
Make sure to use the correct units.







Solve. Write the equations you use. Write your answers in simplest form.
(Watch out! Not all problems are multiplication problems.)

Matthias put sausage on $\frac{2}{3}$ of the pizza.
Then, he put mushrooms on $\frac{1}{4}$ of the
slices with sausage. What fraction of the
whole pizza has mushrooms?



Becket used $\frac{2}{3}$ lb. of strawberries
and $\frac{1}{5}$ lb. of grapes to make fruit salad.
How much fruit did he use in all?



The nature trail is $\frac{9}{10}$ km long. $\frac{1}{3}$ of the
trail is uphill, and the rest is downhill.
How long is the uphill part of the trail?

The sign is $\frac{3}{4}$ ft. long and $\frac{1}{3}$ ft. wide.
What is its area?

Adalyn made $\frac{3}{4}$ L of soup. Then, her
family ate $\frac{5}{8}$ L. How much soup was left?



Henry's family had $\frac{1}{3}$ of a cake left.
Henry ate $\frac{2}{5}$ of the leftover cake. What
fraction of the whole cake did he eat?



Lesson Activities

A

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

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

$$4\frac{1}{5} \approx \underline{\hspace{2cm}}$$

B

Estimate Products of Whole Numbers and Mixed Numbers

To estimate the product of a whole number and a mixed number, round the mixed number to the nearest whole number.

Ex. Maddie runs $2\frac{1}{4}$ mi. each day. About how far does she run in 3 days?

$$3 \times 2\frac{1}{4} \approx ?$$

$$3 \times 2 = 6$$

Maddie runs about 6 miles in 3 days.

Ex. Maddie runs $2\frac{1}{4}$ mi. each day. Exactly how far does she run in 3 days?

$$3 \times 2\frac{1}{4} = ?$$

$$\frac{3}{1} \times \frac{9}{4} = \frac{3 \times 9}{1 \times 4} = \frac{27}{4}$$

$$\frac{27}{4} = 6\frac{3}{4} \text{ mi.}$$

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

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

$$5 \times 1\frac{2}{5}$$

C

Pop the Product (1-Player Game)

1

Greater than
3
and less than
4

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

2

Greater than
8
and less than
12

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

3

Greater than
6
and less than
8

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

4

Greater than
4
and less than
5

$$\underline{\hspace{2cm}} \times 4\frac{2}{5}$$

Practice 

Estimate the answer to each problem.
Then, circle the words that match the answer.
You do not need to find the exact answers.

$$2 \times 1\frac{7}{8}$$

less
than 4

greater
than 4

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

less
than 8

greater
than 8

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

less
than 3

greater
than 3

Betty's dad wants to make a triple batch of chili. Multiply the amount for each ingredient by 3 to find how much of each ingredient he needs. Write your equations in the workspace.

Dad's Delicious Chili

(Makes 8 servings)

$1\frac{1}{2}$ tablespoons of oil

2 cups of onions, chopped

$\frac{1}{4}$ cup of chili powder

$\frac{3}{4}$ teaspoon cumin

$1\frac{1}{4}$ teaspoon garlic powder

$1\frac{3}{4}$ pounds of ground beef

$3\frac{1}{3}$ cups of canned diced tomatoes

$3\frac{2}{3}$ cups of canned tomato puree



Dad's Delicious Chili

(Makes 24 servings)

_____ tablespoons of oil

_____ cups of onions, chopped

_____ cup of chili powder

_____ teaspoon cumin

_____ teaspoon garlic powder

_____ pounds of ground beef

_____ cups of canned diced tomatoes

_____ cups of canned tomato puree



WORK SPACE

Review

Find all factors of each number. Then, answer the question.

Factors of 64: _____

Factors of 80: _____

What is the GCF of 64 and 80? _____

Connect each mixed number to its place on the number line.

$1\frac{3}{4}$

$1\frac{1}{10}$

$1\frac{1}{3}$

$2\frac{1}{5}$

$2\frac{9}{10}$

$2\frac{3}{5}$

Use long division to solve.
Use the multiplication table to help.

2	7	7	0	9

	$\times 27$
1	27
2	54
3	81
4	108
5	135
6	162
7	189
8	216
9	243

Complete.

1 meter = _____ centimeters

1 centimeter = _____ millimeters

1 liter = _____ milliliters

1 kilometer = _____ meters

1 kilogram = _____ grams

Lesson Activities 

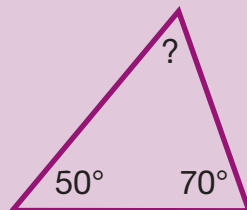
A

Find a Missing Angle in a Triangle

The sum of angles in a triangle is always 180° .

To find a missing angle in a triangle, write the matching addition equation with a blank. Then, use addition and subtraction to find the missing number.

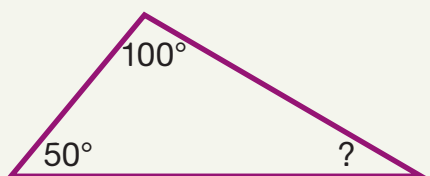
Ex. What is the measure of the missing angle?

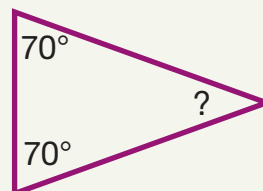


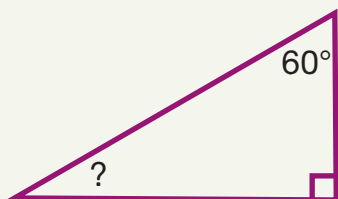
$$\underline{\hspace{2cm}} + 50^\circ + 70^\circ = 180^\circ$$

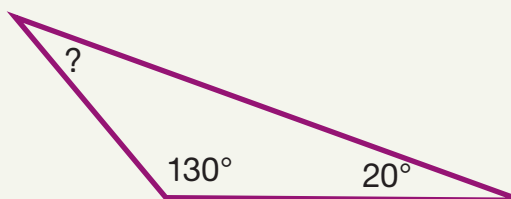
$$50^\circ + 70^\circ = 120^\circ$$

$$180^\circ - 120^\circ = 60^\circ$$









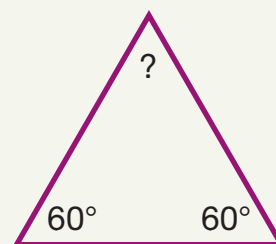
In $\triangle ABC$, $\angle A$ has a measure of 48° and $\angle B$ has a measure of 107° . What is the measure of $\angle C$?

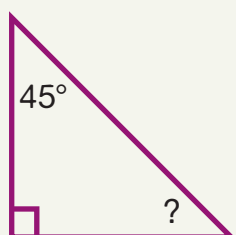
B

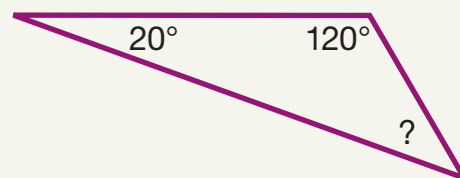
Practice

Find the missing angle in each triangle.

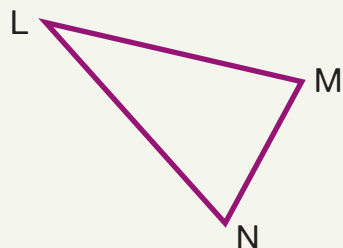








Use the clues to find the measures of the missing angles.

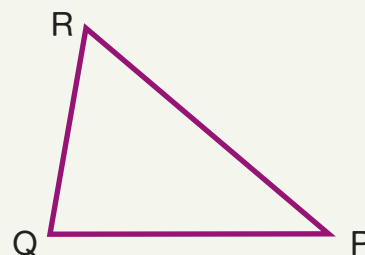
The measure of angle M is 40° greater than the measure of angle L.

$m \angle L = 35^\circ$

$m \angle M = \underline{\hspace{2cm}}$

$m \angle N = \underline{\hspace{2cm}}$

The measure of angle Q is 2 times the measure of angle P.



$m \angle P = 40^\circ$

$m \angle Q = \underline{\hspace{2cm}}$

$m \angle R = \underline{\hspace{2cm}}$

Review

Write each number in expanded form.

Solve.

$$2.35 = \underline{\hspace{2cm}} \quad 2 + \frac{3}{10} + \frac{5}{100}$$

$$1.742 = \underline{\hspace{2cm}}$$

$$0.73 = \underline{\hspace{2cm}}$$

$$3.401 = \underline{\hspace{2cm}}$$

$$52.6 = \underline{\hspace{2cm}}$$

$$39.05 = \underline{\hspace{2cm}}$$

$$38 \div 6 = \underline{\hspace{2cm}} 6 R2$$

$$37 \div 8 = \underline{\hspace{2cm}}$$

$$46 \div 7 = \underline{\hspace{2cm}}$$

$$55 \div 8 = \underline{\hspace{2cm}}$$

$$60 \div 9 = \underline{\hspace{2cm}}$$

$$67 \div 8 = \underline{\hspace{2cm}}$$

Estimate the answer to each problem. Then, circle the words that match the answer. You do not need to find the exact answers.

$$4 \times 1\frac{5}{6}$$

less
than 8greater
than 8

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

less
than 6greater
than 6

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

less
than 10greater
than 10

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

less
than $3\frac{7}{8}$ greater
than $3\frac{7}{8}$

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

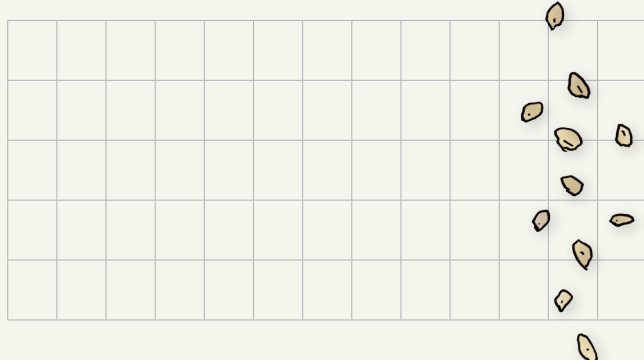
less
than $3\frac{7}{8}$ greater
than $3\frac{7}{8}$

$$2\frac{3}{4} \times 3\frac{7}{8}$$

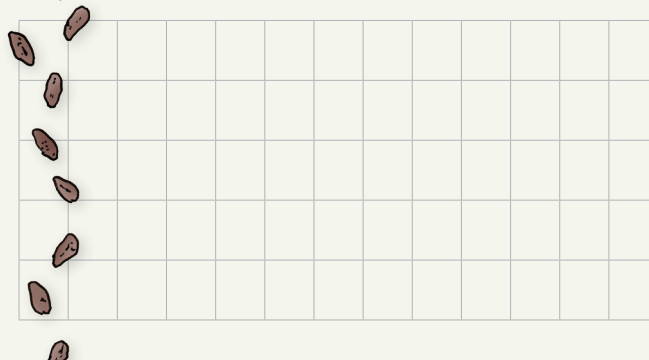
less
than $3\frac{7}{8}$ greater
than $3\frac{7}{8}$

Solve. Write the equations you use. Write your answers in simplest form. If the answer is an improper fraction, convert it to a mixed number or whole number.

The recipe calls for $1\frac{2}{3}$ c. oats for each batch of oatmeal cookies. Wilder wants to make 4 batches. How many cups of oats does he need?



The recipe calls for $\frac{3}{4}$ c. of raisins for each batch of oatmeal cookies. AnnMarie only wants to make $\frac{1}{2}$ of the recipe. How many cups of raisins does she need?



Lesson Activities

A

[illegible]

	3	9	4
+	3	9	4

	2	.	1
	2	.	1
+	2	.	1
<hr/>			

B

Multiply Decimals by Whole Numbers with the Algorithm

Ex. Each bag of chips costs \$4.12. How much do 3 bags cost?



1. Multiply like usual. Ignore the decimal point and any leading zeros.
2. Find the number of decimal digits in the decimal factor.
3. Write a decimal point so the product has the same number of decimal digits as the decimal factor.

$$\begin{array}{r} 4.12 \\ \times \quad 3 \\ \hline 1236 \end{array}$$



$$\begin{array}{r} 4.12 \\ \times \quad 3 \\ \hline 1236 \end{array}$$

2 decimal
digits



$$\begin{array}{r} 4.12 \\ \times \quad 3 \\ \hline \$ 12.36 \end{array}$$

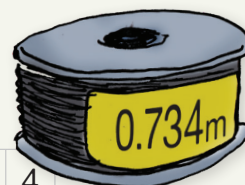
	3	.	9	4
×				2



		2	.	1
×				3
<hr/>				



0.734	
×	4
<hr/>	



C

Decimal Multiplication Least to Greatest (1-Player Game)



2	.	0	7	4
×				
<hr/>				

	3	.	1	4
×				
<hr/>				

		2	.	4
×				
<hr/>				

	4	.	0	6
×				
<hr/>				

	3	.	5	0
×				
<hr/>				

Scoring Guide

Math Master: 3 in a row

Math Whiz: 4 in a row

Math Superstar: 5 in a row

Practice 

Find the product.

3.2	7.32	0.68	71.28
$\times 8$	$\times 5$	$\times 7$	$\times 4$
<hr/>	<hr/>	<hr/>	<hr/>
9.1	0.16	54.9	2.195
$\times 6$	$\times 8$	$\times 9$	$\times 3$
<hr/>	<hr/>	<hr/>	<hr/>

Round the decimal to the nearest whole number and estimate the product. Then, circle the better estimate for each problem. You do not need to find the exact product.

5×3.27

15

20

4×6.9

24

28

8×1.704

8

16

2×9.101

18

20

6×5.1

30

36

5×4.632

20

25

Solve. Write the equations you use.

The Gateway bike trail is 4.7 km long. The Torpedo trail is 5 times as long as the Gateway trail. How long is the Torpedo trail?

Each t-shirt costs \$14.79. How much do 8 t-shirts cost?



Review

Find the product. Write your answers in simplest form.
If the answer is an improper fraction, convert it to a mixed number or whole number.

$$10 \times \frac{1}{10}$$

$$10 \times \frac{1}{100}$$

$$10 \times \frac{1}{1,000}$$

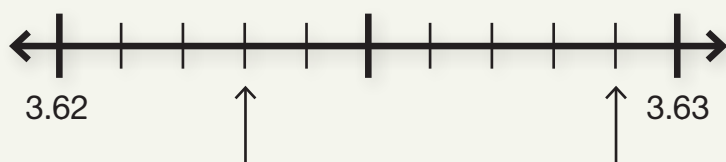
$$100 \times \frac{1}{10}$$

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

$$100 \times \frac{1}{1,000}$$

Label the numbers on the number line.





Write 10, 100, or 1,000 in the blank to make the equations true.

$$47 \times \underline{\hspace{2cm}} = 470$$

$$47 \times \underline{\hspace{2cm}} = 47,000$$

$$47 \times \underline{\hspace{2cm}} = 4,700$$

$$206 \times \underline{\hspace{2cm}} = 20,600$$

$$206 \times \underline{\hspace{2cm}} = 206,000$$

$$206 \times \underline{\hspace{2cm}} = 2,060$$

Write whether each triangle is equilateral, isosceles, or scalene.
Then, write whether each triangle is acute, right, or obtuse.

