

Practice: Skills, Concepts, and Problem Solving

Convert using a place-value chart.

1 $1.8 \text{ km} = \underline{\hspace{2cm}} \text{ m}$

2 $5.12 \text{ dm} = \underline{\hspace{2cm}} \text{ m}$

1000			1	0.1	0.01	0.001
thousands			ones	tenths	hundredths	thousandths
			•			
kilo (km)			meters (m)	deci (dm)	centi (cm)	milli (mm)

1000			1	0.1	0.01	0.001
thousands			ones	tenths	hundredths	thousandths
			•			
kilo (km)			meters (m)	deci (dm)	centi (cm)	milli (mm)

Convert.

3 $2.07 \text{ m} = \underline{\hspace{2cm}} \text{ mm}$

4 $4,000,000 \text{ cm} = \underline{\hspace{2cm}} \text{ km}$

5 $0.0007 \text{ km} = \underline{\hspace{2cm}} \text{ m}$

6 $9,633 \text{ mm} = \underline{\hspace{2cm}} \text{ dm}$

7 $80 \text{ dm} = \underline{\hspace{2cm}} \text{ cm}$

8 $0.1 \text{ m} = \underline{\hspace{2cm}} \text{ dm}$

9 $9 \text{ km} = \underline{\hspace{2cm}} \text{ cm}$

10 $3,400 \text{ cm} = \underline{\hspace{2cm}} \text{ m}$

Solve.

11 **WORMS** In biology class, Mariko's worm was 9.53 centimeters long. How many millimeters long was Mariko's worm? _____ mm

12 **CORN** Each row of corn at the Davis farm is 805 meters long. How many kilometers is each row of corn? _____ km

Write the vocabulary word that completes the sentence.

13 A _____ is an object or number used as a guide to estimate or reference.

14 When you _____, you switch or exchange something equal in value.

Practice: Skills, Concepts, and Problem Solving

Convert using a table.

1 10,560 yd = _____ mi

miles						
yards	1,760	3,520	5,280	7,040	8,800	10,560

2 253,440 in. = _____ mi

miles				
feet	63,360	126,720	190,080	253,440

3 26,400 ft = _____ mi

miles					
feet	5,280	10,560	15,840	21,120	26,400

Convert.

4 5.5 mi = _____ ft

5 20 ft = _____ in.

6 7 yd = _____ in.

7 288 in. = _____ yd

8 21,120 ft = _____ mi

9 8 mi = _____ yd

10 72 in. = _____ ft

11 3 mi = _____ in.

Solve.

12 **ARCHEOLOGY** On a dig, Kenyi found an amazing fossil after digging 10 feet into the ground. How many inches into the ground did Kenyi dig? _____

13 **FLOWERS** Ms. Patton’s class has volunteered to plant flowers in the park. The students planted flowers along a sidewalk that is 880 yards long. How many miles long is the sidewalk? _____

Write the vocabulary word(s) that completes the sentence.

14 A _____ is an object or number used as a guide to estimate or reference.

15 The _____ is a measurement system that includes units such as foot, pound, quart, and degrees Fahrenheit.

16 When you _____, you switch or exchange something equal in value.

Practice: Skills, Concepts, and Problem Solving

Convert using a place-value chart.

1 $0.04 \text{ kL} = \underline{\hspace{2cm}} \text{ L}$

2 $680,000 \text{ mg} = \underline{\hspace{2cm}} \text{ g}$

1000			1		0.001
thousands			ones		thousandths
kilo (kL)			liter (L)		milli (mg)

1000			1		0.001
thousands			ones		thousandths
kilo (kg)			gram (g)		milli (mg)

Convert.

3 $0.0092 \text{ kL} = \underline{\hspace{2cm}} \text{ mL}$

4 $3,510 \text{ mg} = \underline{\hspace{2cm}} \text{ g}$

5 $0.0237 \text{ kg} = \underline{\hspace{2cm}} \text{ g}$

6 $2.3 \text{ L} = \underline{\hspace{2cm}} \text{ mL}$

7 $18 \text{ mL} = \underline{\hspace{2cm}} \text{ L}$

8 $54,250 \text{ mg} = \underline{\hspace{2cm}} \text{ kg}$

Solve.

9 **WEIGHT** A baby chick has a mass of 35,000 milligrams after it hatches. How many kilograms is the chick? _____

10 **WATER** Jorge is designing a large tank to hold 209.1 kiloliters of water. How many milliliters of water will the tank hold? _____

Write the vocabulary word that completes the sentence.

11 A _____ is a metric unit for measuring mass.

12 A _____ liter is a metric unit for measuring volume or capacity.

Practice: Skills, Concepts, and Problem Solving

Convert using a table.

1 9 gal = _____ qt

gallons									
quarts	4	8	12	16	20	24	28	32	36

2 768 fl oz = _____ gal

gallons						
fluid ounces	128	256	384	512	640	768

3 4 lb = _____ oz

gallons						
fluid ounces	128	256	384	512	640	768

Convert.

4 10 gal = _____ qt

5 14 pt = _____ qt

6 17 T = _____ lb

7 2 gal = _____ fl oz

8 64 c = _____ gal

9 3 lb = _____ oz

10 64,000 oz = _____ T

11 15 qt = _____ c

Solve.

12 **PIZZA** Angelos is making pizzas and needs 24 ounces of cheese. How many pounds of cheese does Angelos need? _____

13 **FISH** The fish tank in Mr. Moseley’s classroom holds 20 gallons of water. How many quarts of water does the tank hold? _____

Write the vocabulary word that completes the sentence.

14 The _____ system is a measurement system that includes units such as foot, pound, quart, and degrees Fahrenheit.

Practice: Skills, Concepts, and Problem Solving

Convert using a table.

1 7 h = _____ min

hours							
minutes	60	120	180	240	300	360	420

2 144 h = _____ d

days						
hours	24	48	72	96	120	144

Convert.

3 9 m = _____ s

4 85°C = _____ °F

5 168 h = _____ d

6 2 wk = _____ s

7 0.5 d = _____ s

8 95°F = _____ °C

9 45°C = _____ °F

10 4,320 m = _____ d

Solve.

11 **CAMP** Owen went to an overnight summer camp for 4 weeks. How many days did Owen spend at camp? _____

12 **FUDGE** Aiko's recipe for fudge says to melt chocolate to 115°C. What should the temperature of the chocolate be in degrees Fahrenheit? _____

Write the vocabulary word that completes the sentence.

13 A _____ is the unit of measure for temperature.

14 _____ is the measure of how hot or cold something is.

15 _____ is the measure of how long or short an event is.

Practice: Skills, Concepts, and Problem Solving

Find each unit rate.

- 1 10 meters in 5 seconds _____
- 2 12 pounds in 4 years _____
- 3 1,000 milligrams in 5 bottles

- 4 \$33 for 6 lunches _____
- 5 84 fluid ounces in 7 glasses

- 6 72 athletes in 9 events _____
- 7 56 cents for 8 ounces _____
- 8 250 words typed in 10 minutes

Circle the greater or faster rate in each situation.

- 9 35 yards in 7 minutes
36 yards in 12 minutes
- 10 80 liters in 8 hours
48 liters in 8 hours
- 11 30 ounces in 15 inches
28 ounces in 7 inches
- 12 45 grams in 5 decimeters
42 grams in 7 decimeters
- 13 6 degrees in 2 days
21 degrees in 3 days
- 14 63 inches in 9 weeks
63 inches in 7 weeks

Solve.

- 15 **EARNINGS** Claudia makes \$24 for 4 hours of baby-sitting. Paige makes \$21 for 3 hours of lawn mowing. Who makes more money per hour?

- 16 **BASEBALL** Rudy has thrown 84 pitches in 4 innings of the baseball game. How many pitches did he throw per inning? _____

Write the vocabulary word(s) that completes the sentence.

- 17 A _____ is a rate simplified so that it has a denominator of 1.

Practice: Skills, Concepts, and Problem Solving

Draw a line segment of each length.

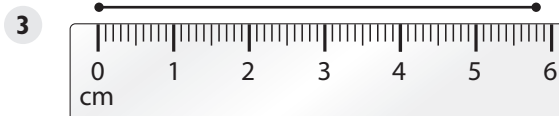
- 1 4 centimeters



- 2 $3\frac{7}{8}$ inches



Measure the length of each line segment to the nearest millimeter.



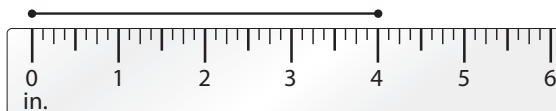
The line segment is _____ millimeters long.



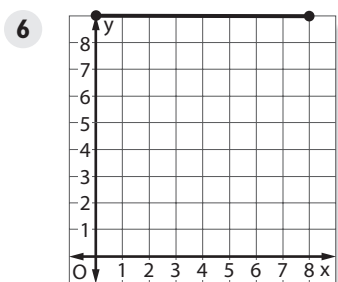
The line segment is _____ millimeters long.

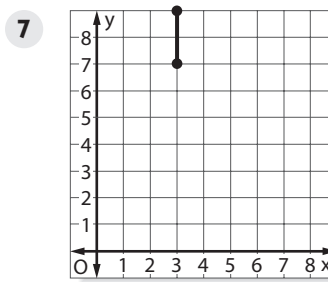
Measure the length of each line segment to the nearest inch.

- 5 The line segment is _____ inches long.



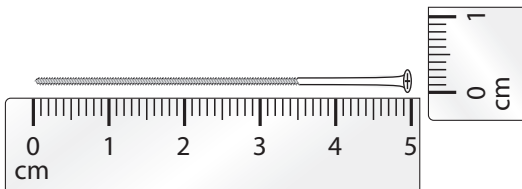
Find the length of each segment.





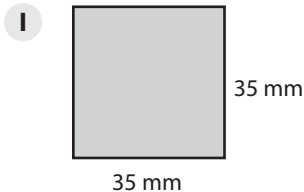
Solve.

- 8 **TOOLS** Carlos is building a large dog house. The screws he uses are 50 mm long. What is the diameter of the screw head?

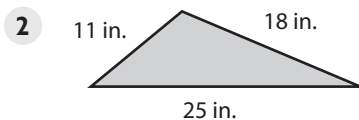


Practice: Skills, Concepts, and Problem Solving

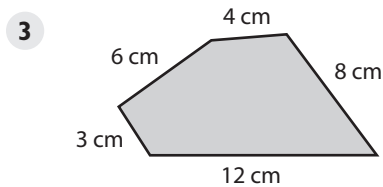
Find the perimeter of each polygon.



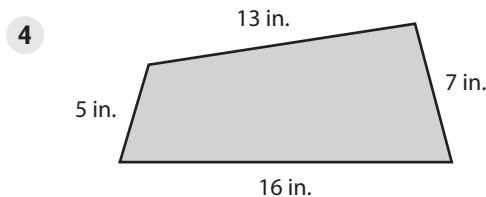
The perimeter of the square is _____ millimeters.



The perimeter of the triangle is _____ inches.

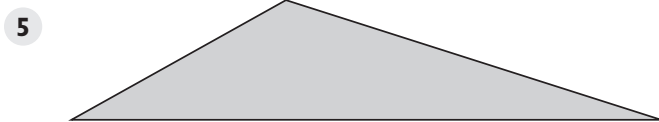


The perimeter of the polygon is _____ centimeters.

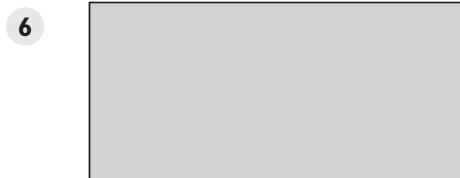


The perimeter of the polygon is _____ inches.

Measure the sides of each polygon. Find the perimeter.



The perimeter of the triangle is _____ centimeters.



The perimeter of the rectangle is _____ inches.

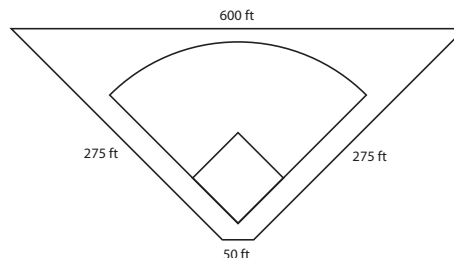
Draw a polygon that has the given perimeter.

- 7 Draw a figure that has a perimeter of 20 centimeters.

- 8 Draw a figure that has a perimeter of 30 centimeters.

Solve.

- 9 **SPORTS** A baseball field is shown. How many feet of fencing is needed to enclose the field? _____



 **Vocabulary**

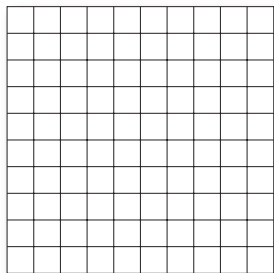
Write the vocabulary word that completes the sentence.

- 10 _____ is the distance around a shape or region.

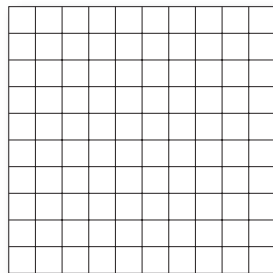
Practice: Skills, Concepts, and Problem Solving

Draw a figure that has the area given.

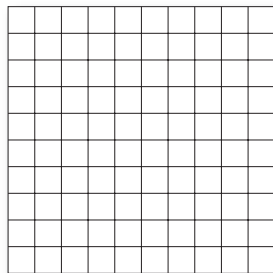
1 42 square units



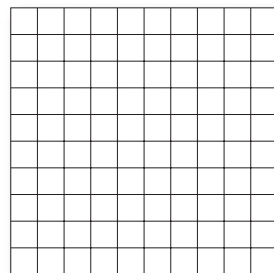
2 18 square units



3 10 square units

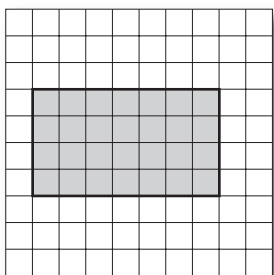


4 49 square units



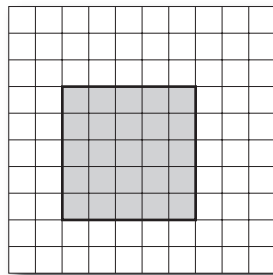
Find the area of each figure.

5



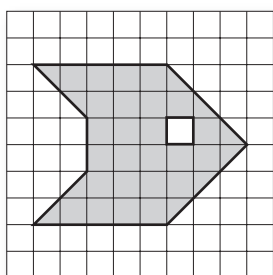
The area of the rectangle is _____ square units.

6



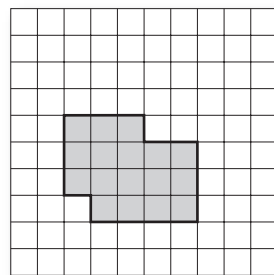
The area of the square is _____ square units.

7



The area of the rectangle is _____ square units.

8



The area of the figure is _____ square units.

Solve.

- 9 **CONSTRUCTION** Craig is laying tile on his bathroom floor. The bathroom is a rectangle. He can place 10 tiles along one wall and 6 tiles along another. How many tiles will fit on Craig's bathroom floor? _____

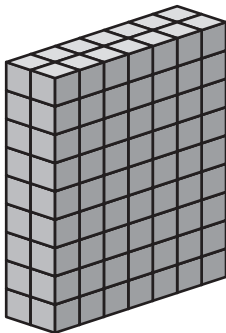
Write the vocabulary word that completes the sentence.

- 10 The number of square units needed to cover the inside of a region or plane figure is the _____.

Practice: Skills, Concepts, and Problem Solving

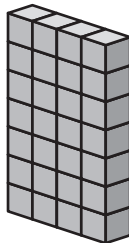
How many cubes are in each rectangular prism?

1



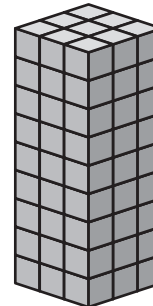
There are _____ cubes in the rectangular prism.

2



There are _____ cubes in the rectangular prism.

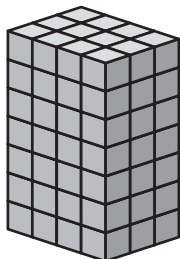
3



There are _____ cubes in the rectangular prism.

Find the volume of each rectangular prism.

4



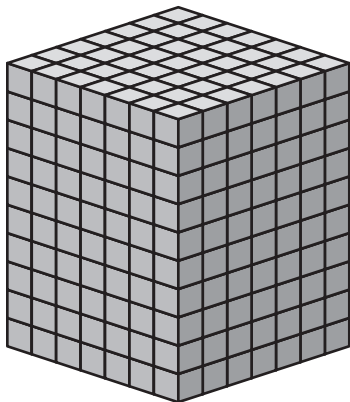
There are _____ cubes along the length of the rectangular prism.

There are _____ cubes along the width of the rectangular prism.

There are _____ cubes along the height of the rectangular prism.

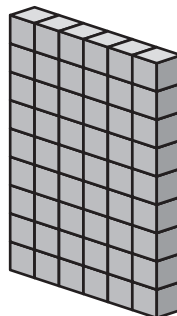
The volume of the rectangular prism is _____ cubic units.

5



The volume of the rectangular prism is _____ cubic units.

6



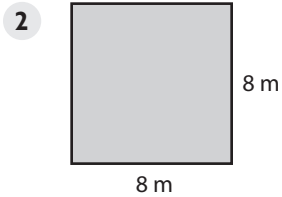
The volume of the rectangular prism is _____ cubic units.

Solve.

- 7 **APPLIANCES** The size of an appliance is determined by the volume of its interior space. What is the size of a refrigerator whose interior space has a height of 7 feet, a width of 2 feet and a depth of 5 feet? _____

Find the area.

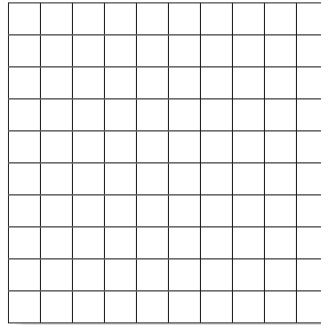
- 1 Find the area of a square with side lengths of 4 in. _____.



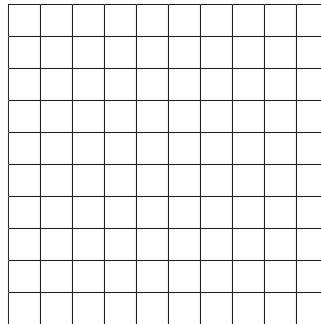
The area of the square is _____.

- 3 Find the area of a rectangle with a length of 2 yd. and a width of 6 yd. _____.
- 4 Find the area of a rectangle with a length of 12 cm. and a width of 7 cm. _____.

- 6 8 cm^2

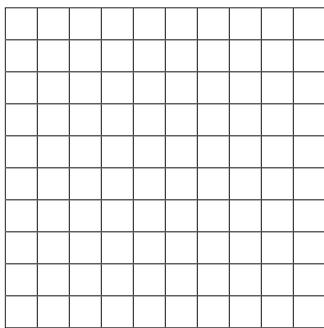


- 7 36 ft^2



Draw a rectangle for each area given.

- 5 30 yd^2



Solve.

- 8 **RUGS** Lydia bought an area rug for her living room. The rug is a rectangle that measures 42 inches wide by 66 inches long. What is the area of Lydia's rug?
- _____

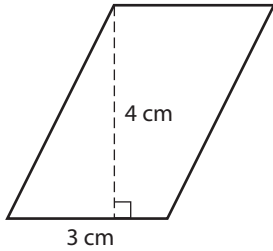
Write the vocabulary word that completes the sentence.

- 9 A _____ unit is a unit for measuring area.

Practice: Skills, Concepts, and Problem Solving

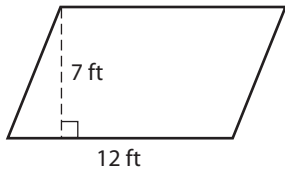
Find the area of each parallelogram.

1



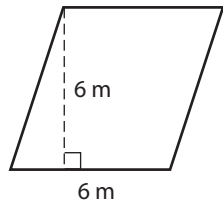
The base of the parallelogram is _____ and the height is _____ . The area of the parallelogram is _____ .

2



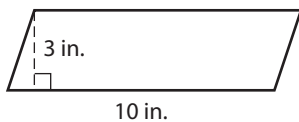
The base of the parallelogram is _____ and the height is _____ . The area of the parallelogram is _____ .

3



The area of the parallelogram is _____ .

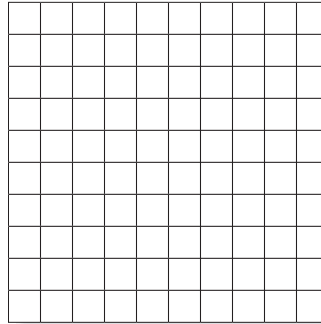
4



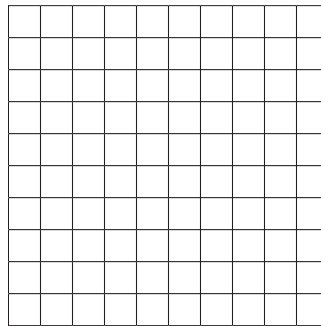
The area of the parallelogram is _____ .

Draw a parallelogram that has the area given.

5 20 m²



6 6 yd²



Solve.

7 **PENDANTS** Ratana made a metal pendant for a necklace. The pendant was shaped like a parallelogram; it had a base of 2 centimeters and a height of 6 centimeters. What was the area of the pendant?

Write the vocabulary word that completes the sentence.

8 _____ is the number of square units needed to cover the inside of a region or a plane figure.

Practice: Skills, Concepts, and Problem Solving

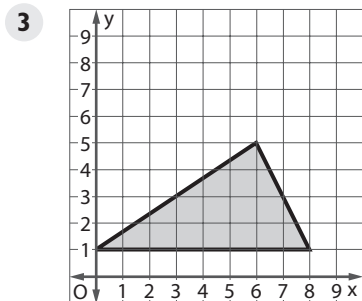
Find the area of each triangle.

- 1 A triangle with a base of 4 ft and a height of 5 ft.

The area of the triangle is _____.

- 2 A triangle with a base of 6 yd and a height of 6 yd.

The area of the triangle is _____.



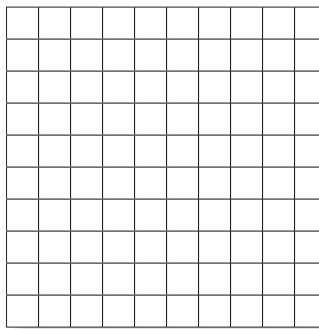
The base of the triangle measures _____.

The height of the triangle measures _____.

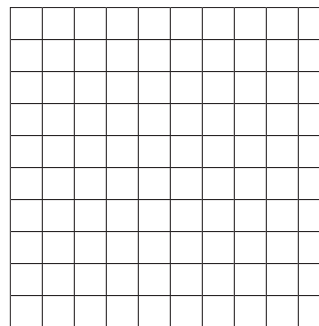
The area of the triangle is _____.

Draw a triangle that has the area given.

- 4 14 m^2



- 5 8 in.^2



Solve.

- 6 **SAILING** In sailing, an answering pennant is used to signal other boats. This particular pennant is shaped like a triangle with a base of 2 ft and a height of 4 ft. What is the area of the pennant?

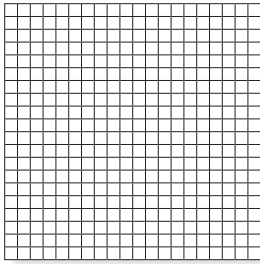
Write the vocabulary word that completes the sentence.

- 7 A rectangle cut in half along its diagonal will form 2 _____.

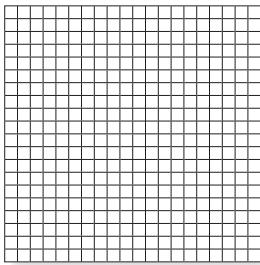
Practice: Skills, Concepts, and Problems Solving

Draw a net for a rectangular prism with the dimensions given.

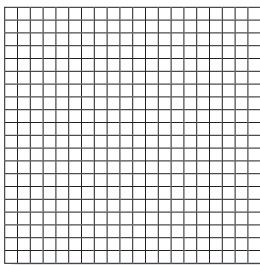
1 $6 \times 2 \times 8$



2 $3 \times 3 \times 5$

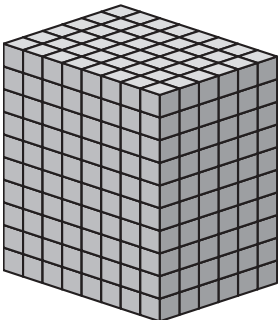


3 $2 \times 6 \times 4$



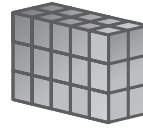
Find the surface area of each rectangular prism.

4



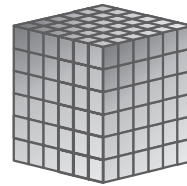
The surface area of the rectangular prism is _____ square units.

5



The surface area of the rectangular prism is _____ square units.

6



The surface area of the cube is _____ square units.

Solve.

7 **BLOCKS** Lourdes is playing with building blocks. One block is shaped like a rectangular prism with a length of 14 mm, a width of 40 mm, and a height of 80 mm. What is the surface area of the block?

8 **GEOMETRY** A cube has sides of length 7 yards. What is the total surface area of the cube? _____

Write the vocabulary term that completes the sentence.

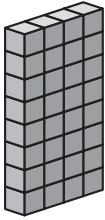
9 The area of the surface of a three-dimensional figure is called _____.

_____.

Practice: Skills, Concepts, and Problem Solving

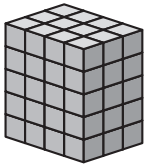
Find the number of cubes in each rectangular prism.

1



How many cubes are in this rectangular prism? _____

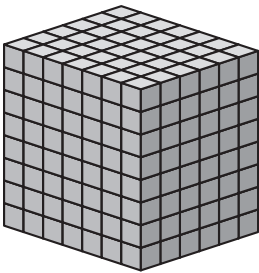
2



How many cubes are in this cube?

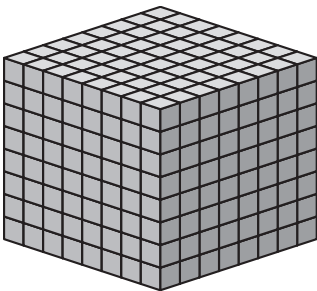
Find the volume of each rectangular prism.

3



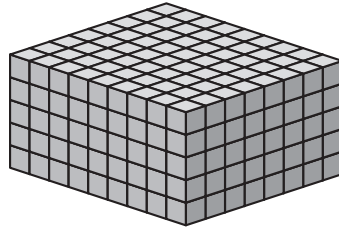
The volume of the rectangular prism is _____ cubic units.

4



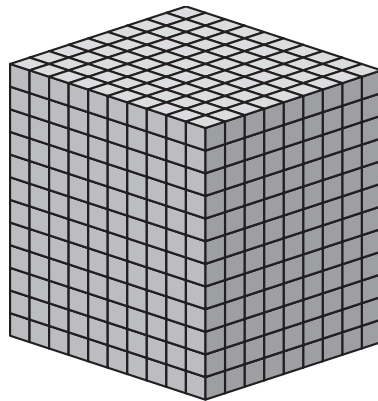
The volume of the cube is _____ cubic units.

5



The volume of the rectangular prism is _____ cubic units.

6



The volume of the rectangular prism is _____ cubic units.

Solve.

7 **COTTON** A bale of cotton is measured by width, length, and height. If the width of the bale is 20 inches, the length is 54 inches, and the average height is 33 inches, what is the volume of the cotton bale? _____

8 **GEOMETRY** A number cube measures 16 millimeters on each side. What is the volume of the cube? _____

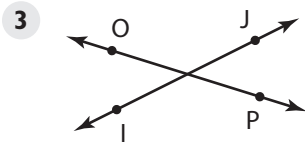
Write the vocabulary word that completes the sentence.

9 A three-dimensional figure with six congruent square faces is called a _____.

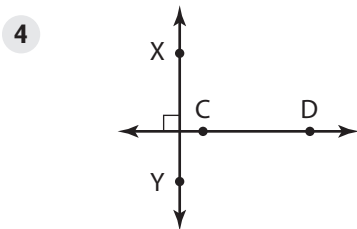
1 line PQ

2 intersecting lines AB and ZY

Name each line. Identify the relationships.



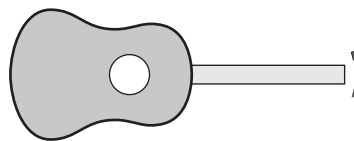
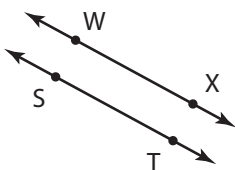
The lines are _____ and _____. \overline{OP} _____ \overline{IJ} .



The lines are _____ and _____. \overline{EF} _____ \overline{QR} .

Solve.

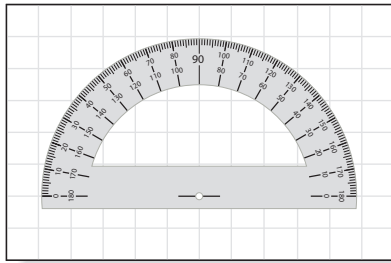
5 **GUITAR** Jack takes guitar lessons. What type of lines do the strings on his guitar form? _____



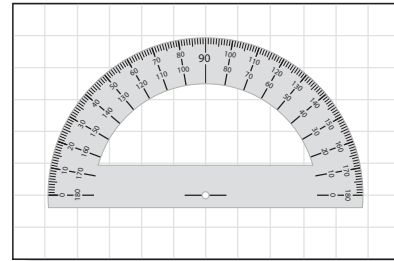
Practice: Skills, Concepts, and Problem Solving

Draw an angle with the measurement given.

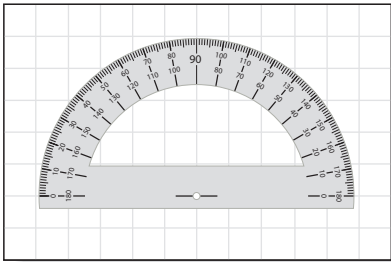
1 70°



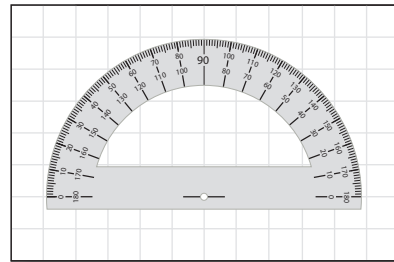
2 90°



3 175°



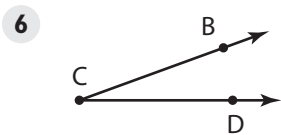
4 125°



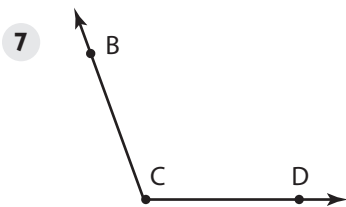
Measure and identify the angle.



$\angle TAN$ measures _____. $\angle TAN$ is a(n) _____ angle.



$\angle BCD$ measures _____. $\angle BCD$ is a(n) _____ angle.

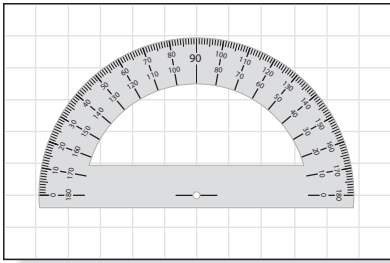


$\angle OPQ$ measures _____. $\angle OPQ$ is a(n) _____ angle.

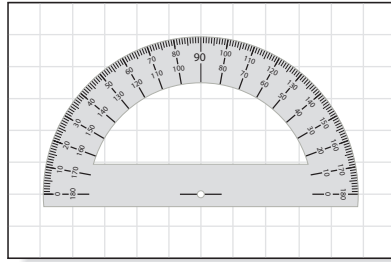
Practice: Skills, Concepts, and Problem Solving

Draw a figure with the description given.

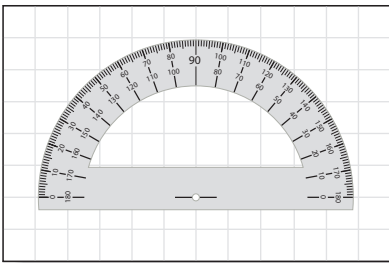
1 square



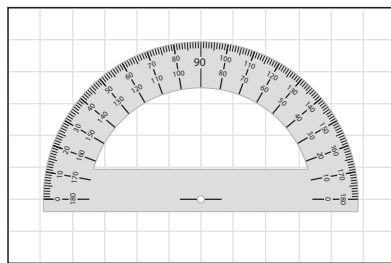
2 acute, isosceles triangle



3 parallelogram



4 right, scalene triangle



Identify the figure.

5



The figure is a(n) _____.

6



The figure is a(n) _____.

Solve.

- 8 **INSTRUMENTS** The percussion instrument shown is called a triangle; it is struck with the bar to create sound. If the triangle is classified by its sides, what type of triangle is shown? _____



Write the vocabulary word that completes the sentence.

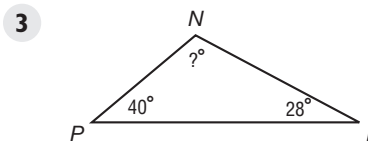
- 9 A _____ triangle is a triangle that has no congruent sides.

Practice: Skills, Concepts, and Problem Solving

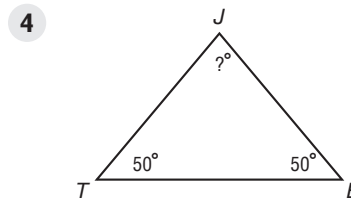
Draw each type of angles given.

- 1 Draw supplementary angles.
- 2 Draw complementary angles.

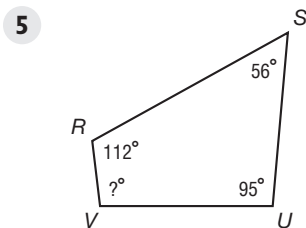
Find the measure of the missing angle.



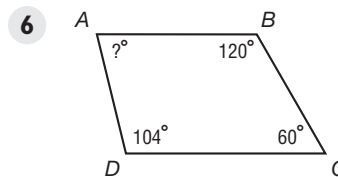
The measure of the missing angle is _____.



The measure of the missing angle is _____.



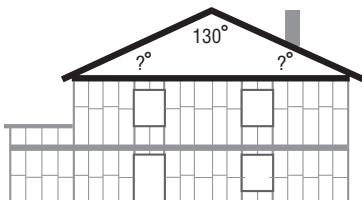
The measure of the missing angle is _____.



The measure of the missing angle is _____.

Solve.

- 7 **ROOF** The roof of a house is an isosceles triangle. What is the measure of each of the missing roof angles? _____



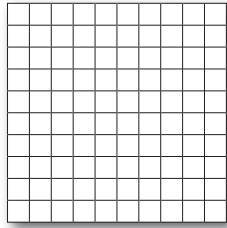
Write the measurement that completes the sentence.

- 8 Complementary angles are two angles that have measures with a sum of _____.
- 9 Supplementary angles are two angles that have measures with a sum of _____.

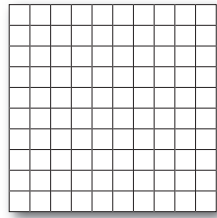
Practice: Skills, Concepts, and Problem Solving

Draw two congruent figures.

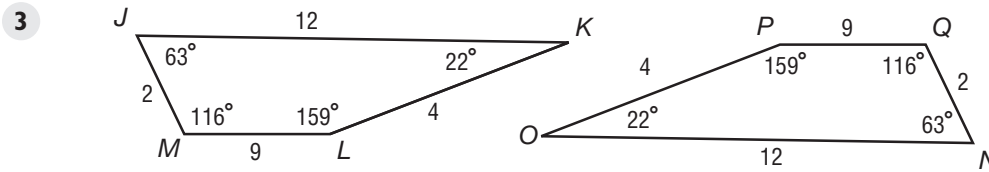
1 triangles



2 quadrilaterals



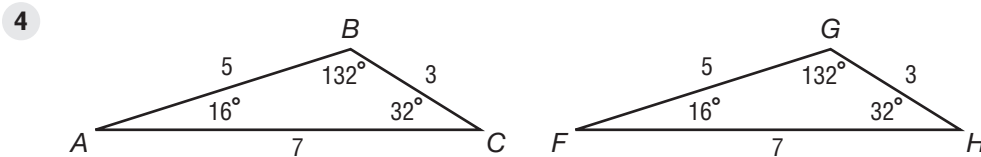
Are the figures congruent?



Find the congruent sides and angles.

$NO \cong$ _____ $OP \cong$ _____ $PQ \cong$ _____ $QN \cong$ _____
 $m\angle N \cong m\angle$ _____ $m\angle O \cong m\angle$ _____ $m\angle P \cong m\angle$ _____ $m\angle Q \cong m\angle$ _____

Quadrilateral $JKLM$ and quadrilateral $NOPQ$ are _____ because corresponding sides and corresponding angles are _____.



Triangle MNO and triangle PQR are _____ because corresponding sides are _____.

Solve.

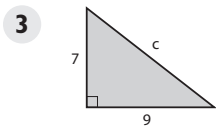
5 **Music** Kame just bought a two new CDs. Are the two CD cases congruent? _____

Practice: Skills, Concepts, and Problem Solving

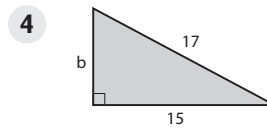
Use the measurements given to draw a right triangle or indicate if a right triangle cannot be drawn with the measurements.

- 1 6 cm, 6 cm, and 8.5 cm 2 9 in., 5 in., and 12 in.

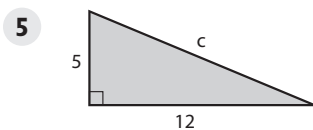
Find the length of the leg or hypotenuse of each right triangle to the nearest tenth.



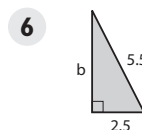
The length of the hypotenuse is _____ units.



The length of the leg is _____ units.



The length of the hypotenuse is _____ units.



The length of the leg is _____ units.

Solve.

- 7 **TELEVISION** Mr. Patel is buying a new television. He wants to figure out the biggest size television he can get. His cabinet has an opening that is 30 inches tall and 40 inches wide. What is the largest diagonal length of a television Mr. Patel can buy? _____

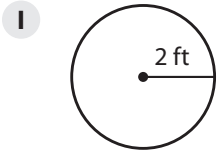
- 8 **MAPS** Carisa is making a treasure map. The path from the starting point to the treasure is 28 paces forward then 15 paces to the left. About how many paces would it be to go directly from the starting point to the treasure? _____

Write the vocabulary word(s) that completes the sentence.

- 9 The _____ of a triangle are the two sides that form the right angle in a right triangle.
- 10 The _____ is the side opposite the right angle in a right triangle.
- 11 A(n) _____ is the product of a number multiplied by itself.

Practice: Skills, Concepts, and Problem Solving

Find the circumference and area of each circle. Use 3.14 for π .

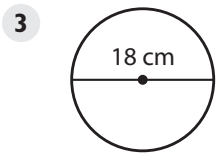


The circumference of the circle is about _____ ft and the area of the circle is about _____ ft^2 .

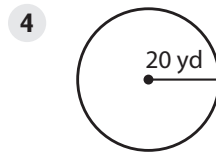


The circumference of the circle is about _____ mm and the area of the circle is about _____ mm^2 .

Find the circumference and area of each circle. Use $22\frac{7}{7}$ for π .



The circumference of the circle is about _____ cm and the area of the circle is about _____ cm^2 .



The circumference of the circle is about _____ yd and the area of the circle is about _____ yd^2 .

Solve.

- 5 **PONDS** Kimoko has a circular fish pond in her backyard. It has a diameter of 7 feet. What is the area of Kimoko's fish pond? _____
- 6 **RIBBON** Pearl wants to put a ribbon around a basket with a radius of 4 inches. How much ribbon does Pearl need? _____

Vocabulary Review

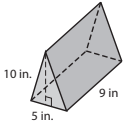
Write the vocabulary word(s) that completes the sentence.

- 7 A _____ circle is a closed figure in which all points are the same distance from a fixed point called the center of the circle.
- 8 The value of _____ is approximately 3.14 or $22\frac{7}{7}$.
- 9 The _____ is a chord that passes through the center of a circle.

Practice: Skills, Concepts, and Problem Solving

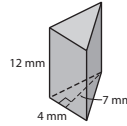
Find the volume of each solid figure. Use 3.14 for π .

1



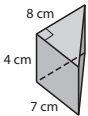
The volume of the triangular prism is _____.

2



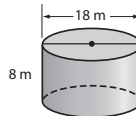
The volume of the triangular prism is _____.

3



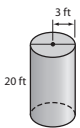
The volume of the triangular prism is _____.

4



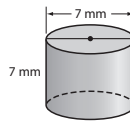
The volume of the cylinder is about _____.

5



The volume of the cylinder is about _____.

6



The volume of the cylinder is about _____.

Solve.

7 **SOUP** Tina is making condensed soup. The can of soup is 8 inches tall and has a radius of 3 inches. What is the volume of the can? _____

8 **CHEESE** Seri has a wedge of cheese that is in the shape of a triangular prism. The base of the triangle is 4 centimeters and the height of the triangle is 9 centimeters. The height of the whole wedge is 7 centimeters. What is the volume of Seri's wedge of cheese? _____

Write the vocabulary word(s) that completes the sentence.

9 A _____ is a prism whose bases are triangular with parallelograms for sides.

10 A _____ is a three-dimensional figure having two parallel, congruent circular bases and a curved surface connecting the two bases.