# Name: 6.G.1

Find the area of the triangle. _____

Find the area of the triangle. _____

5 in

6 in

Find the area of the triangle. _____

5 ft

7 ft
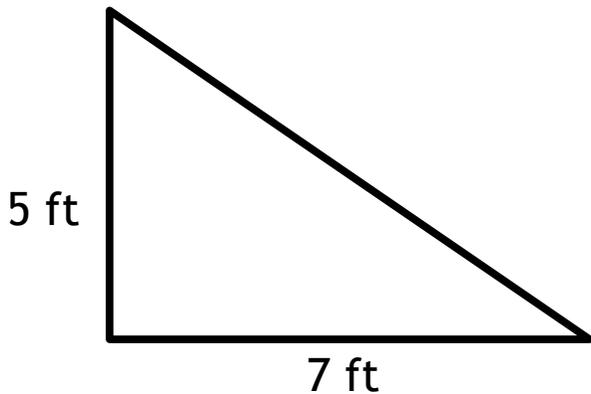
Find the area of the polygon. _____

Find the area of the pentagon. _____
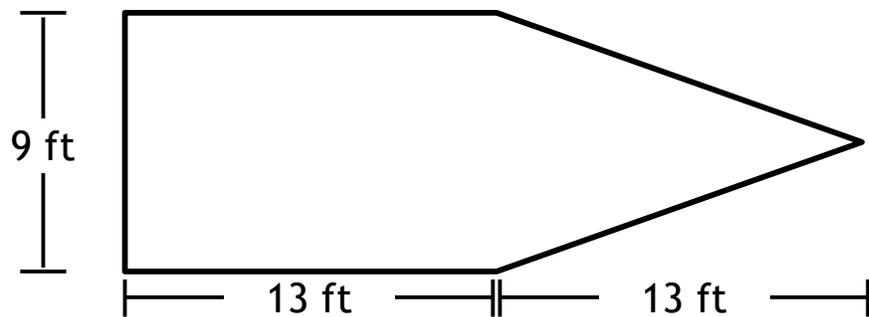
9 ft

13 ft   13 ft

Areas: Compose, Decompose, and Real-World

Directions: Solve each problem.

1. Find the area of the triangle. _____

2. Find the area of the triangle. _____

4 in

5 in

3. Find the area of the pentagon. _____

11 ft

12 ft   12 ft
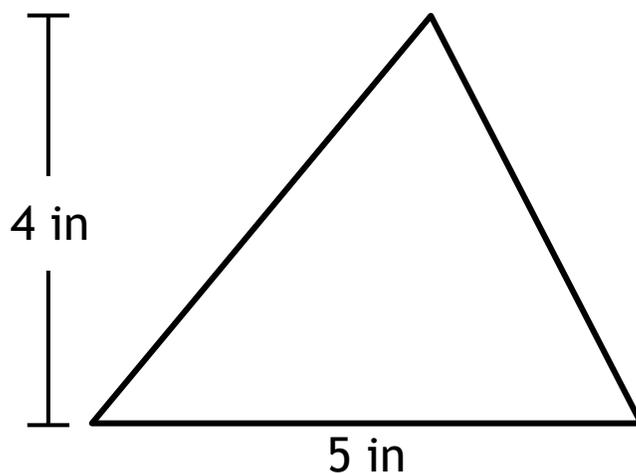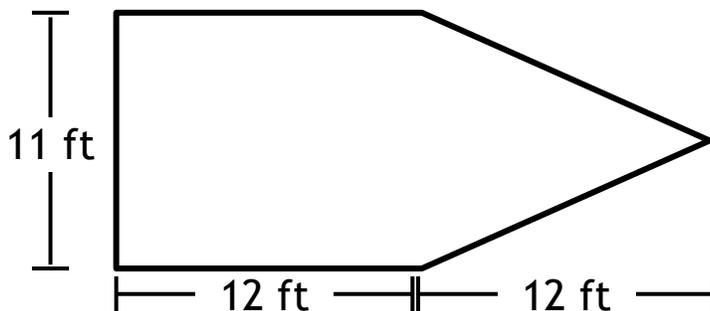
4. Find the area of the right trapezoid. _____

4 m

3 m   3 m

Areas: Compose, Decompose, and Real-World

Directions: Solve each problem.

1. Find the area of the triangle. _____

13 ft

9 ft

2. Find the area of the triangle. _____

7 in

14 in
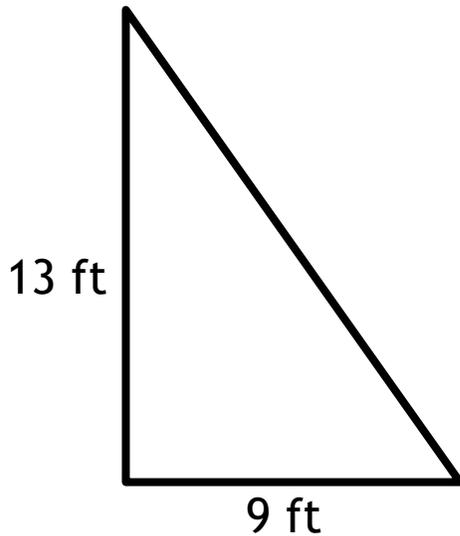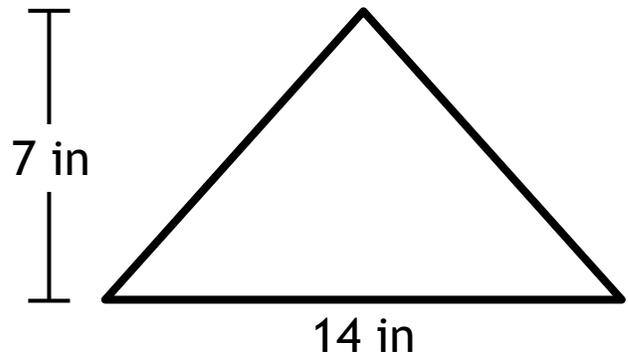
3. Find the area of the polygon. _____
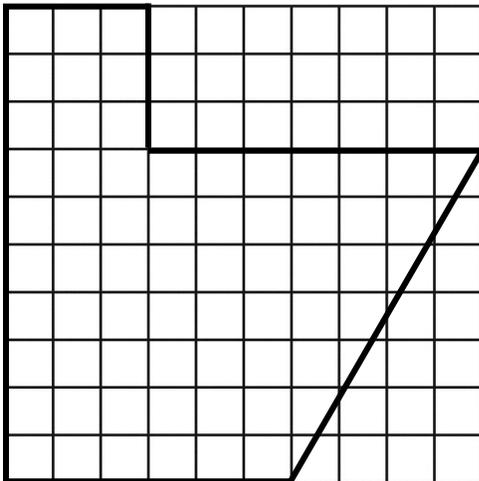
4. Find the area of the pentagon. _____
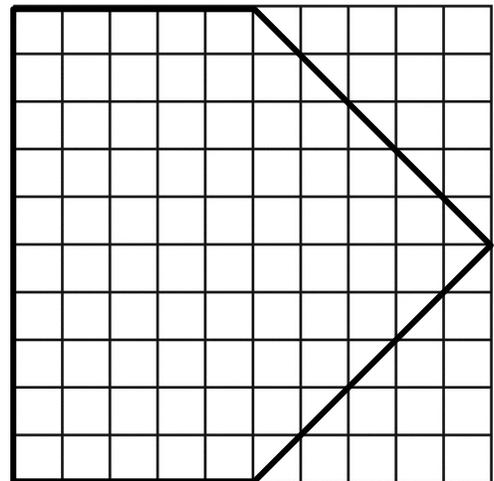
Name: _____   6.G.2

Find the volume.

¼ in

¼ in

⅜ in

_____

Find the volume.

6 ½ yd

Base = 13 yd²

_____
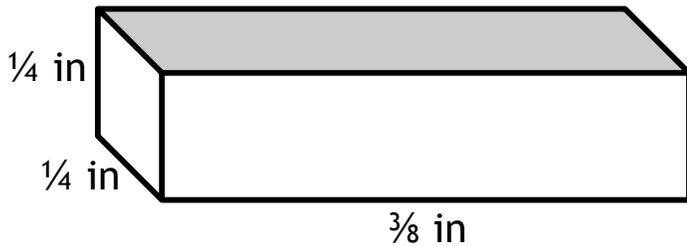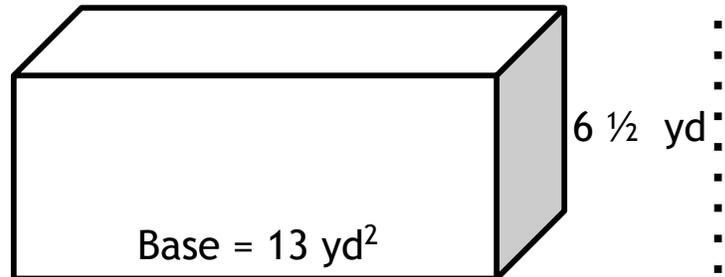
Solve the word problem correctly.

A cooler is in the shape of a right rectangular prism. If the cooler is 3 ½ feet long, 2 ⅚ feet wide, and 1 foot deep, what is the volume of the cooler?

_____

Solve the word problem correctly.

A cardboard box has edges of length 2 ⅖ in, 6 ½ in, and 3 in. What is the volume of the box?

_____

Fill the rectangular prism with cubes to find the volume.

L = ¼ ft
W = ¼ ft
H = ¼ ft
V = 1/64 ft³

Volume = _____

¼ ft

¼ ft

¾ ft
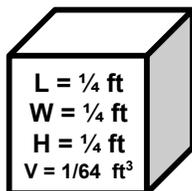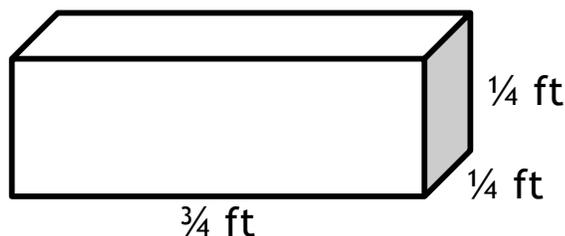
Volumes of Right Rectangular Prisms

Directions: Solve each problem.

1. Fill the rectangular prism with cubes to find the volume.

    Volume = _____

    L = ⅕ cm
    W = ⅕ cm
    H = ⅕ cm
    V = 1/125 cm³

    ⅕ cm
    ⅕ cm
    ⅗ cm

2. Fill the rectangular prism with cubes to find the volume.

    Volume = _____

    L = ¼ ft
    W = ¼ ft
    H = ¼ ft
    V = 1/64 ft³

    ¼ ft
    ¼ ft
    1 ¼ ft
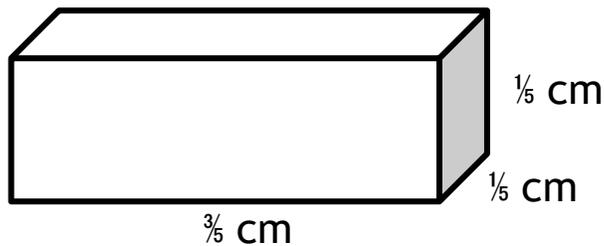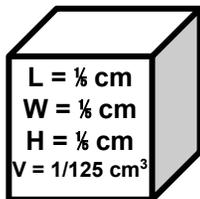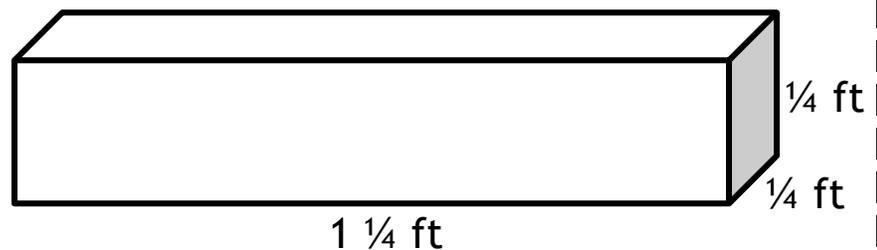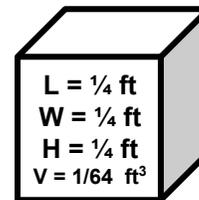
3. Find the volume.

    Volume = _____

    2 ⅔ m
    2 ⅓ m
    6 ½ m
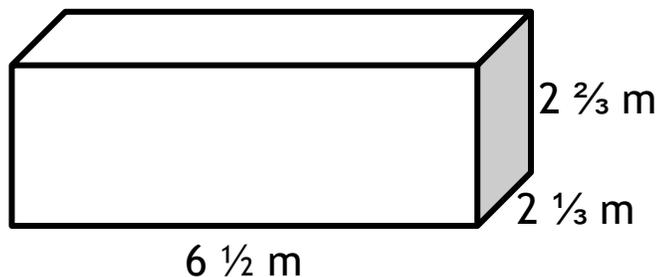
4. Find the volume.
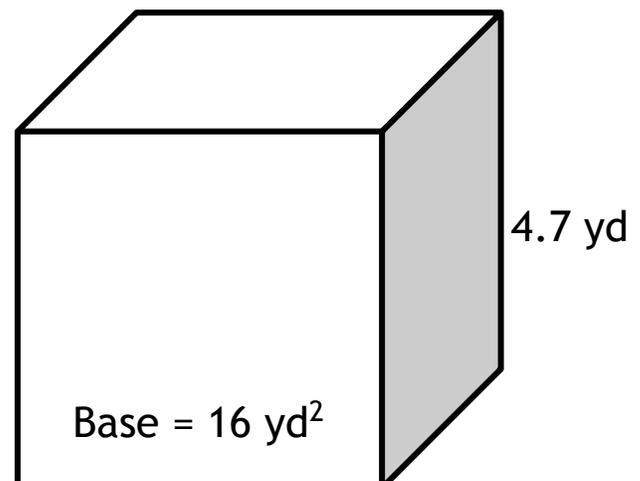
    Volume = _____

    4.7 yd
    Base = 16 yd²

Volumes of Right Rectangular Prisms

Directions: Solve each problem.

1. A swimming pool is in the shape of a right rectangular prism. If the pool is 12 ¾ yards long, 5 ⅔ yards wide, and 9 yards deep, what is the volume of the swimming pool?

   _____

2. A cardboard box has edges of length 5.5 in, 3.2 in, and 7.25 in. What is the volume of the box?

   _____

3. The base of a rectangular prism has an area of 26.25 inches^2, and the height of the prism is 4.5 inches. What is the volume of the prism?

   _____

4. The base of a rectangular prism has an area of 13 ⅔ meters^2, and the height of the prism is 8 ⅚ meters. What is the volume of the prism?

   _____

Draw the quadrilateral ABCD whose vertices are A(–2, –5), B(5, –5), C(5, 6), D(–2, 5).

What is the length of the side between points A and B?
_____

What is the length of the side between points B and C?
_____
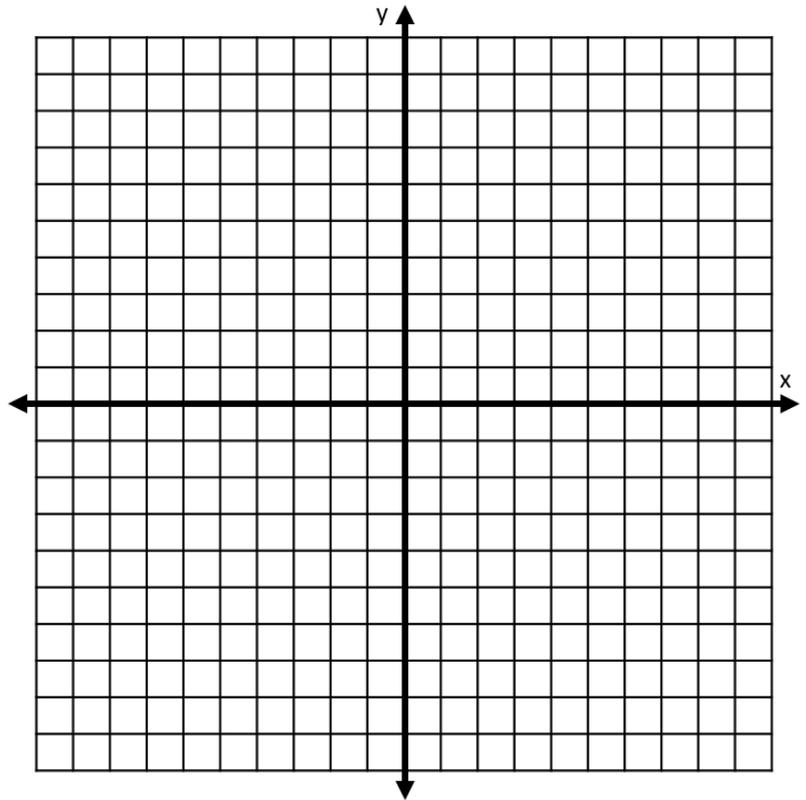
Solve each problem.

Ross likes to bike around his neighborhood. Each unit on the graph equals 1 mile.

What is the distance between the between Ross' house and the school? _____

What is the the distance between the school and the grocery store?
_____

Ross' House

Bank

School

Grocery Store
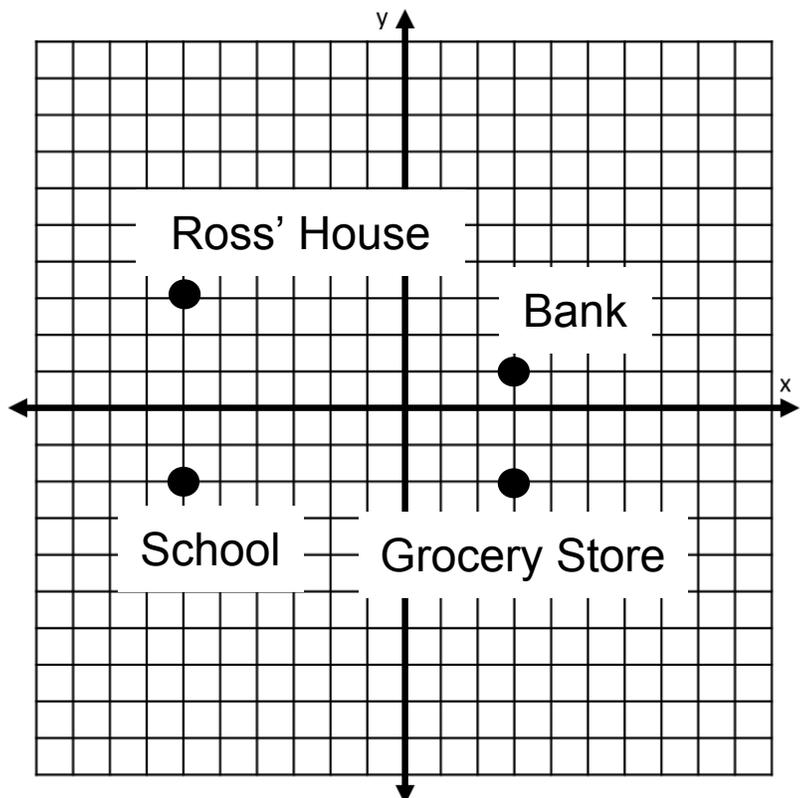
Polygons and Distances in the Coordinate Plane

Directions: Solve each problem.

1. Draw the quadrilateral ABCD whose vertices are A(−8, −5), B(8, −5), C(2, 5), D(−2, 5).

   What is the length of the side between points A and B? _____

   What is the length of the side between points C and D? _____
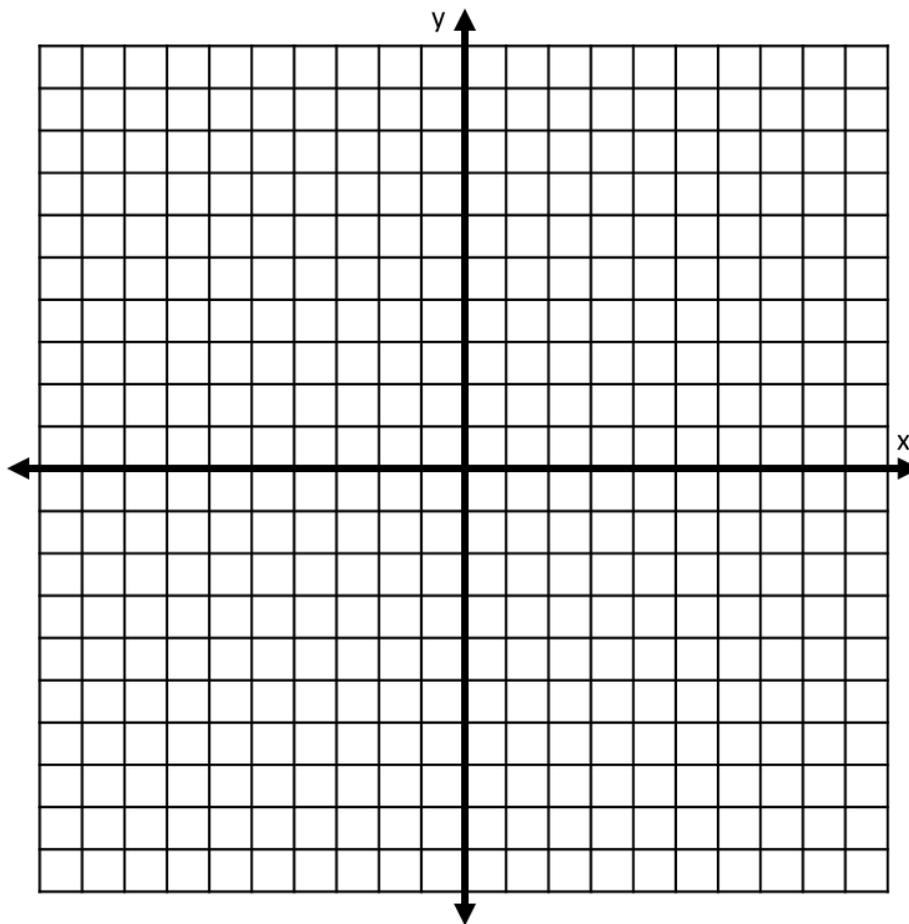
2. The quadrilateral ABCD has the vertices A(−10, −9), B(9, −9), C(6, 3), D(-7, 3).

   What is the length of the side between points A and B? _____

   What is the length of the side between points C and D? _____

Polygons and Distances in the Coordinate Plane

Directions: Solve each problem.

1. Troy likes to bike around his neighborhood. Each unit on the graph equals 1 mile.

   What is the distance between the between Troy's house and the school? _____

   What is the the distance between the school and the grocery store? _____

Troy's House

Bank

School

Grocery Store
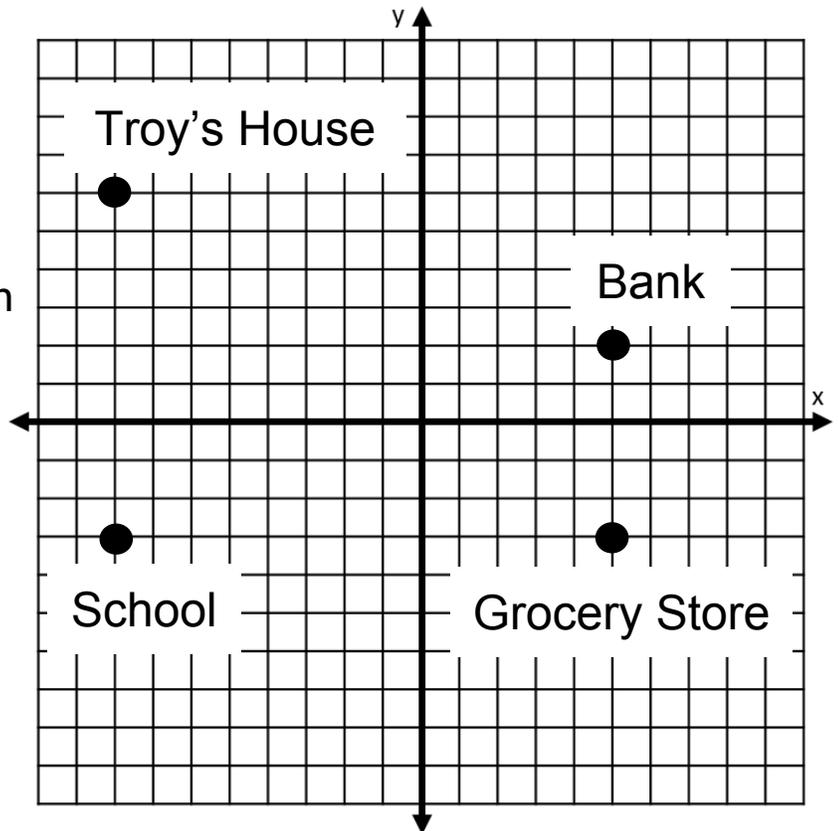
2. The triangle ABC has the vertices A(5, −6), B(5, 7), C(-7, 7).

   What is the length of the side between points A and B? _____

   What is the length of the side between points B and C? _____

3. The polygon ABCDE has the vertices A(−6, −1), B(6, -1), C(9, 2), D(6, 5), E(-6, 5).

   What is the length of the side between points A and B? _____

   What is the length of the side between points A and E? _____

Find the surface area of the square-based pyramid using the net. _____

7 cm

7 cm

Find the surface area of the rectangular prism using the net. _____

2 in   4 in   2 in

2 in
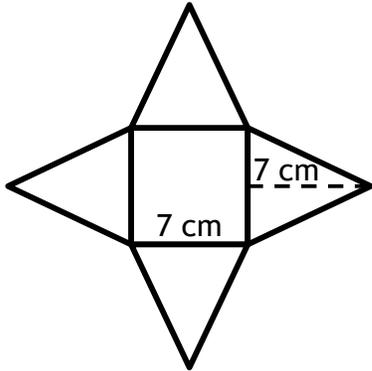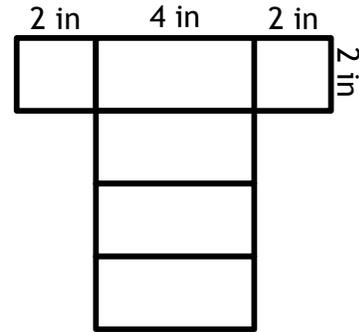
Earl wants to paint all sides of a cube, but he first needs to know its surface area. The cube has sides 9 feet long. What is its surface area?

_____

Alvin's wrapping service wraps Christmas presents and charges $0.01 per square inch of the package. Theodore wants to pay Alvin to wrap a package for Simon. It is a box 11 inches long, 4 inches wide, and 2 inches tall. How much will Alvin charge Theodore to wrap it?

_____

Pete received a trophy at the state math competition. His trophy is in the shape of a square pyramid and is covered in wrapping paper. What is the minimum amount of wrapping paper needed to wrap his trophy?

8.5 cm

6 cm

_____
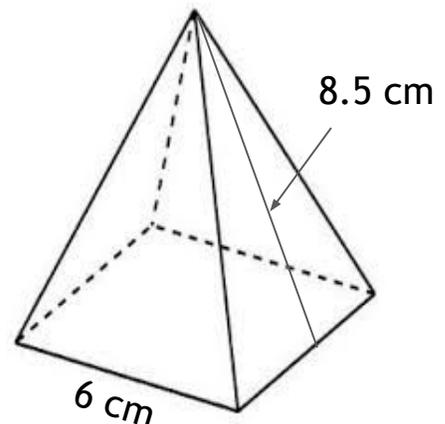
Surface Areas using Nets

Directions: Solve each problem.

1. Find the surface area of a cube with 7-inch sides.

    _____

    7 in
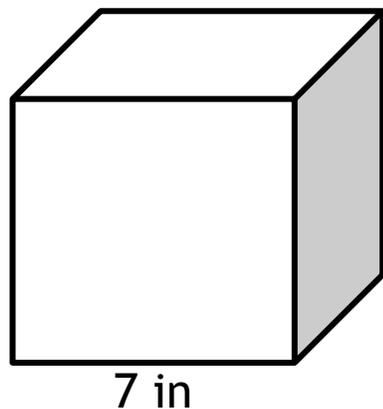
2. Find the surface area of the square-based pyramid using the net. _____

    5 cm

    5 cm
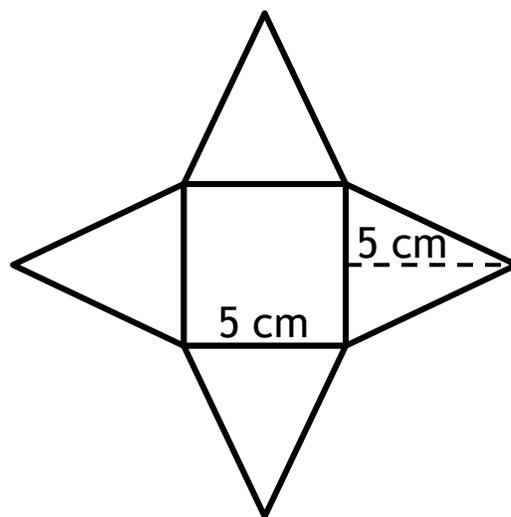
3. Find the surface area of the rectangular prism using the net. _____

    4 in   8 in   4 in

    4 in
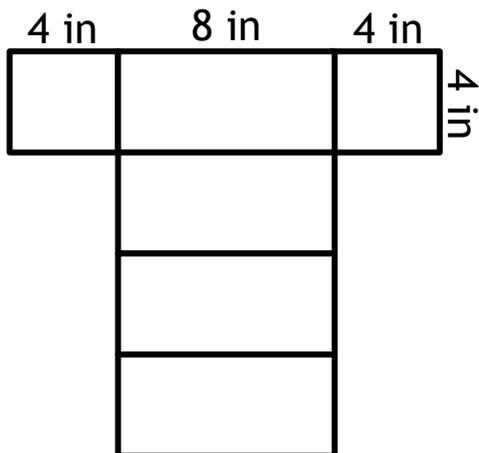
4. Find the surface area of the triangular prism using the net. _____

    4 cm

   8 cm   6 cm

    5 cm   5 cm
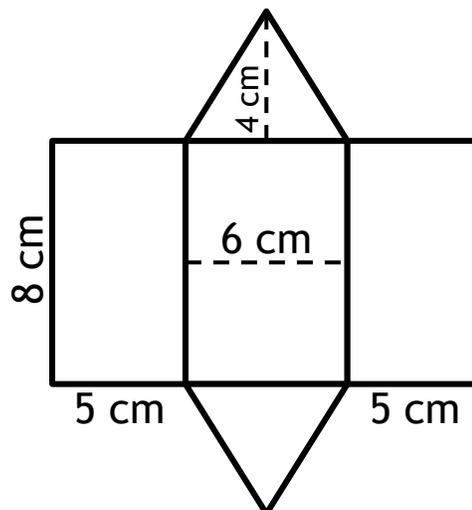
Surface Areas using Nets

Directions: Solve each problem.

1. Betty bought a gift for her friend. She placed the gift in a box with the length of 9 inches, width of 13 inches, and height of 8 inches. What is the surface area of the box?

   _____

2. Olivia bakes a rectangular cake that is 7 ½ inches wide, 12 inches long and 2 ¼ inches high. If Judy frosts <u>each</u> side of the cake, what is the surface area of the cake she needs to frost?

   _____

3. Hank received a trophy at the state math competition. His trophy is in the shape of a square pyramid and is covered in wrapping paper. What is the minimum amount of wrapping paper needed to wrap his trophy?

   9.5 cm

   7 cm

   _____
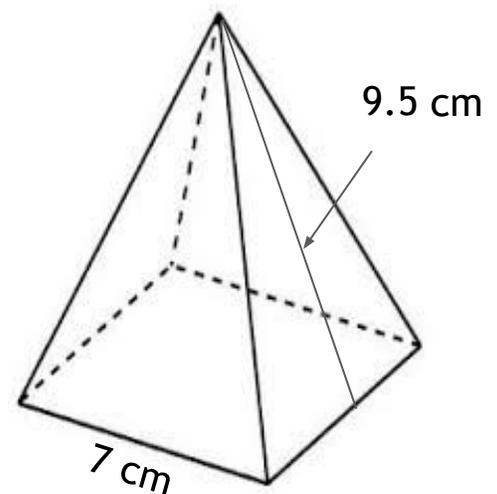
Name: _____ > G Test <

> 6.G.1 < **Find the area of the triangle.**

_____

4 in

8 in
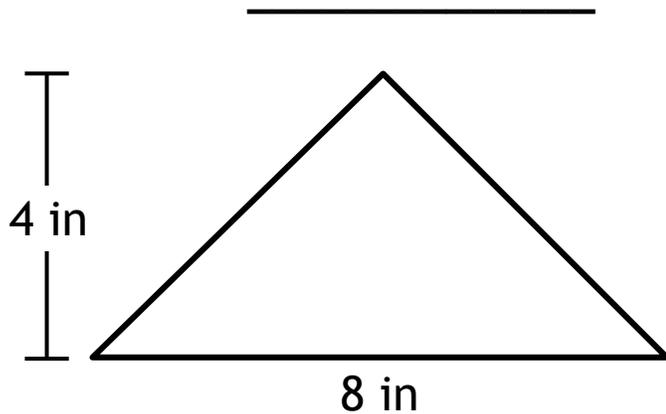
> 6.G.1 < **Find the area of the polygon.**

_____

> 6.G.2 < **Find the volume.**

¾ ft

¾ ft

2 ½ ft

_____
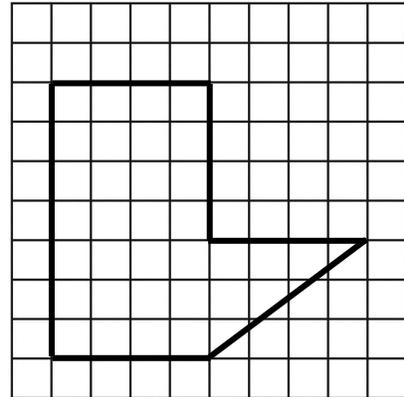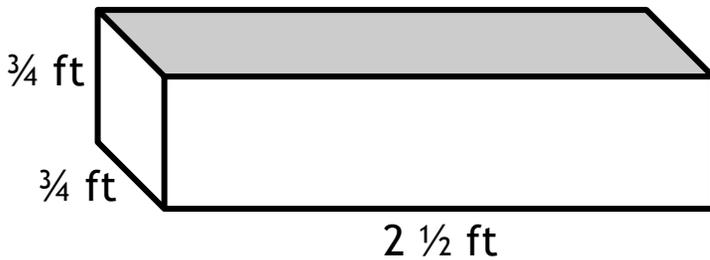
> 6.G.2 <

A cardboard box has a base of 4 ⅕ inches and a height of 6 ½ inches. What is the volume of the box?

_____

> 6.G.2 < **Fill the rectangular prism with cubes to find the volume.**

Volume = _____

L = ⅓ cm
W = ⅓ cm
H = ⅓ cm
V = 1/27 cm³

⅓ cm

⅓ cm

1 ⅓ cm
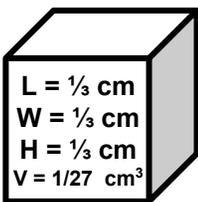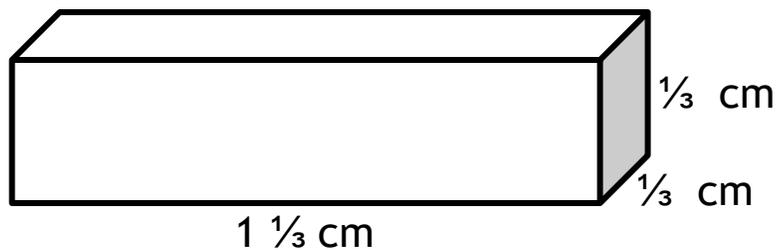
6.G.3

Draw the quadrilateral ABCD whose vertices are A(−4, −4), B(8, −4), C(5, 5), D(−1, 5).

What is the length of the side between points A and B?

_____

What is the length of the side between points C and D?

_____

y

x
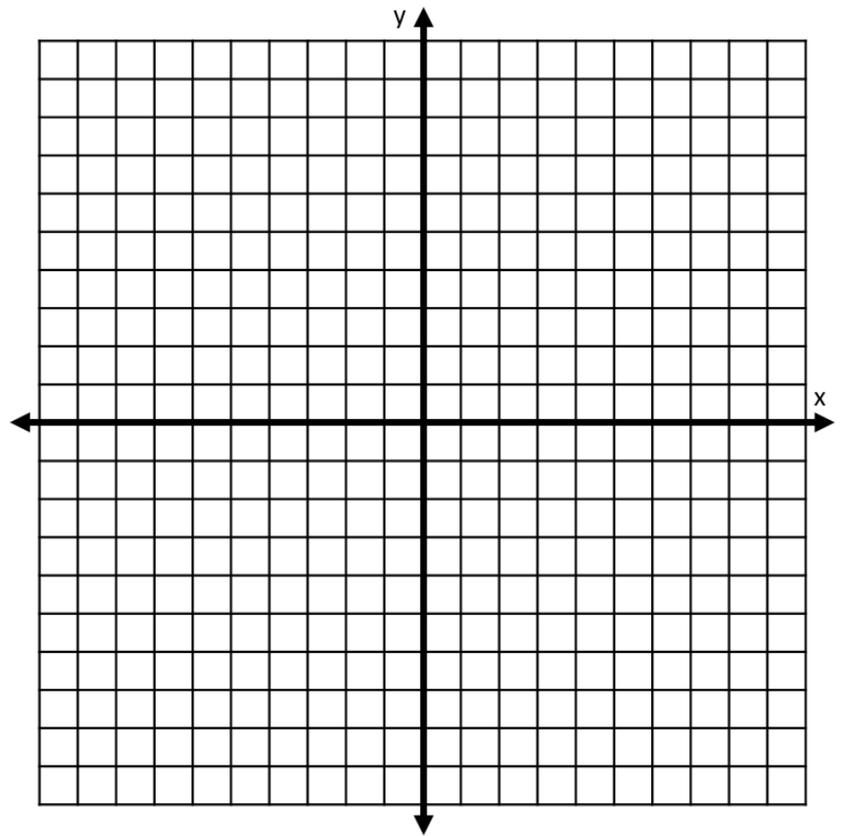
6.G.4 Find the surface area of the square-based pyramid using the net. _____

3 cm

3 cm
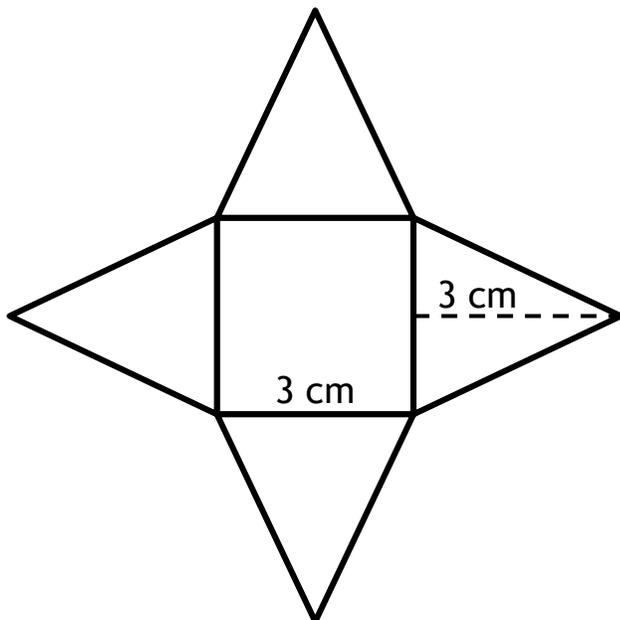
6.G.4 Alvin's wrapping service wraps Christmas presents and charges $0.01 per square inch of the package. Theodore wants to pay Alvin to wrap a package for Simon. It is a box 12 inches long, 5 inches wide, and 3 inches tall. How much will Alvin charge Theodore to wrap it?

_____