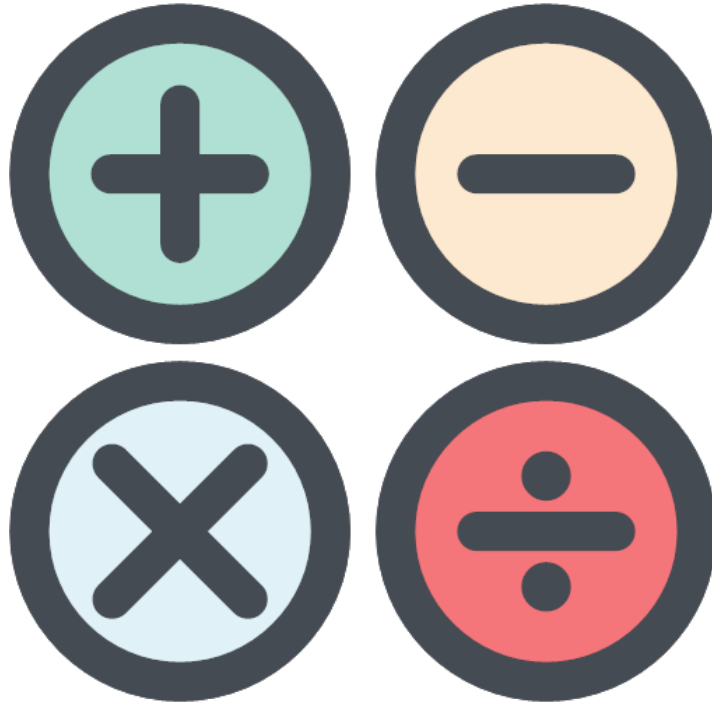




WALDEN GREEN
MONTESSORI



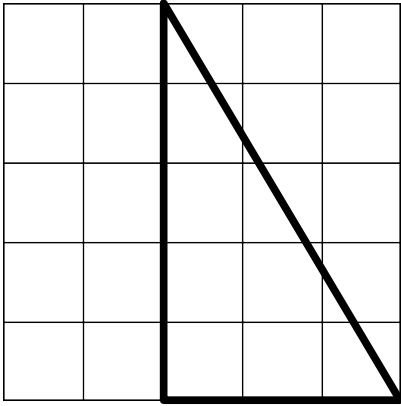
LESSON ANSWER KEY

6th Year - Unit 3

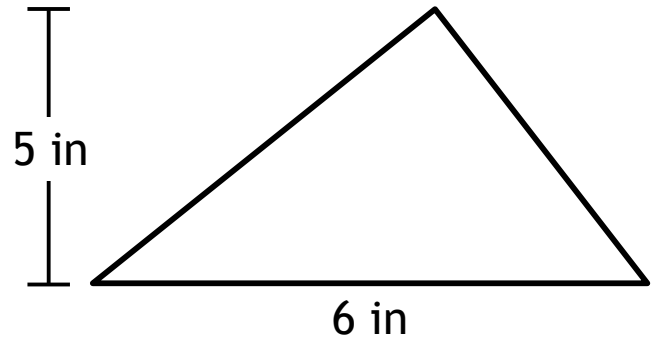
Geometry

(G)

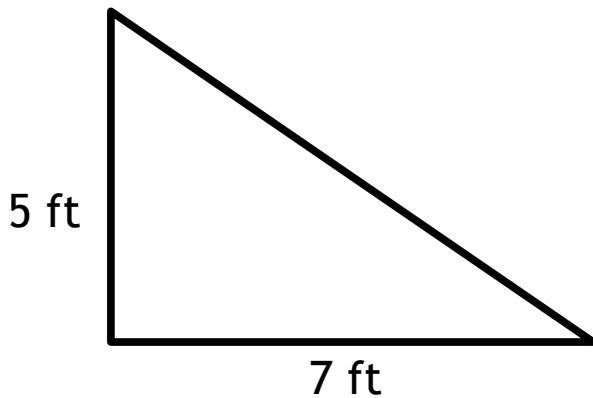
Find the area of
the triangle. **7.5 units²**



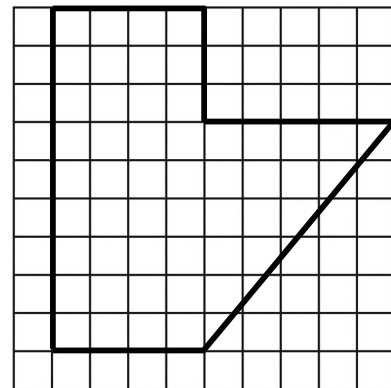
Find the area of
the triangle. **15 units²**



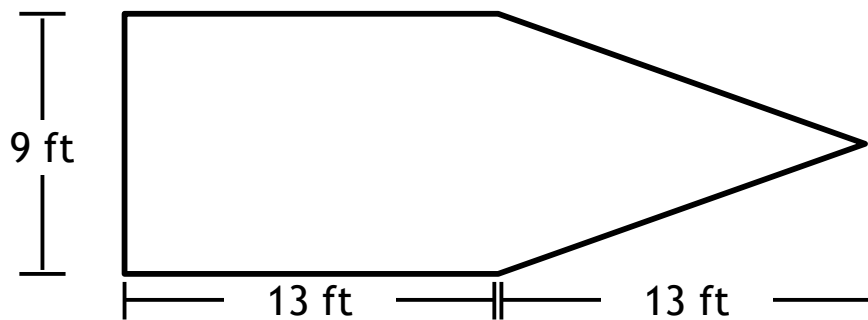
Find the area of
the triangle. **17.5 units²**



Find the area of
the polygon. **51 units²**



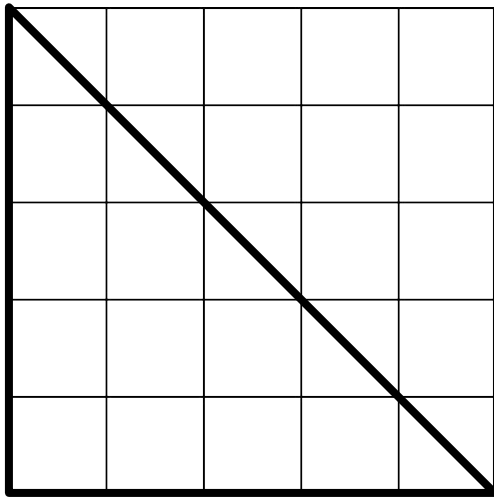
Find the area of the pentagon. **175.5 units²**



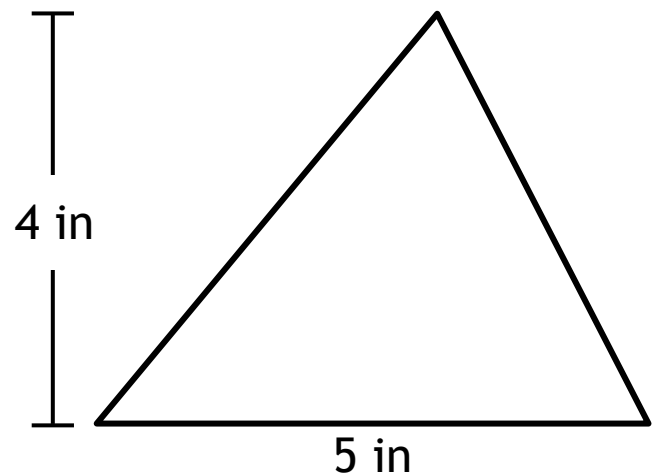
Areas: Compose, Decompose, and Real-World

Directions: Solve each problem.

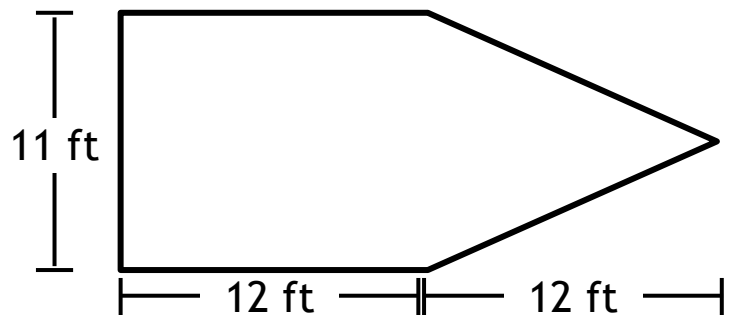
1. Find the area of the triangle. **12.5 units²**



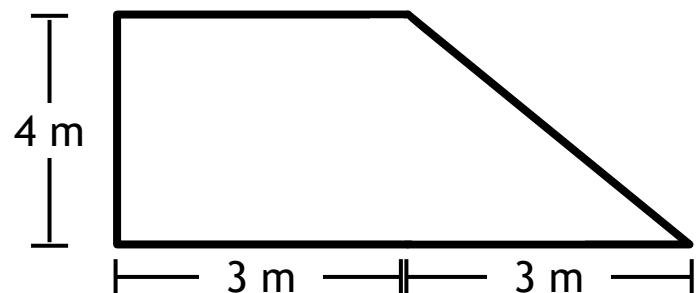
2. Find the area of the triangle. **10 in²**



3. Find the area of the pentagon. **198 ft²**



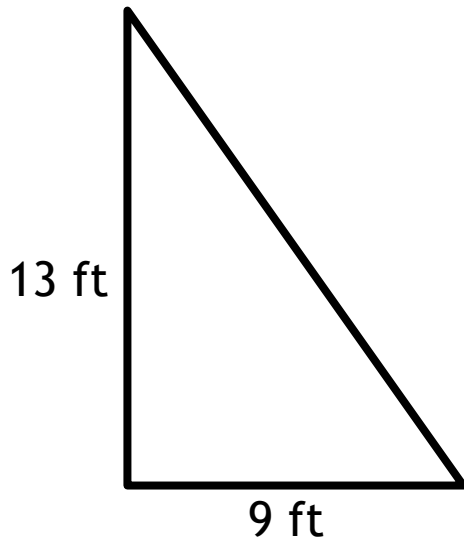
4. Find the area of the right trapezoid. **18 m²**



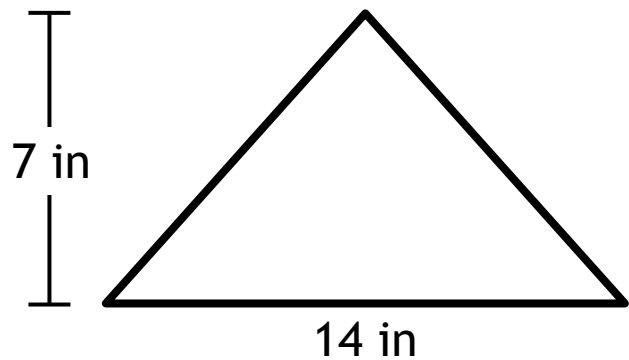
Areas: Compose, Decompose, and Real-World

Directions: Solve each problem.

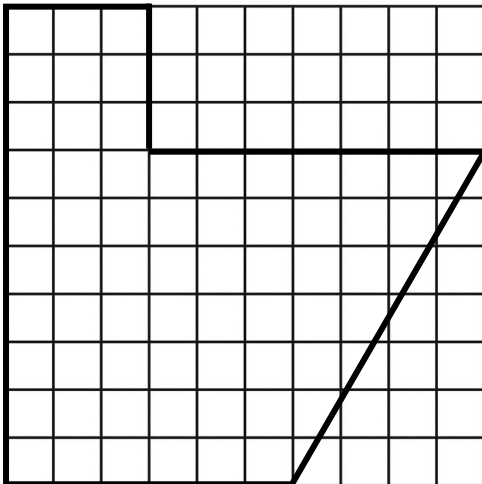
1. Find the area of the triangle. **$58 \frac{1}{2} \text{ ft}^2$**



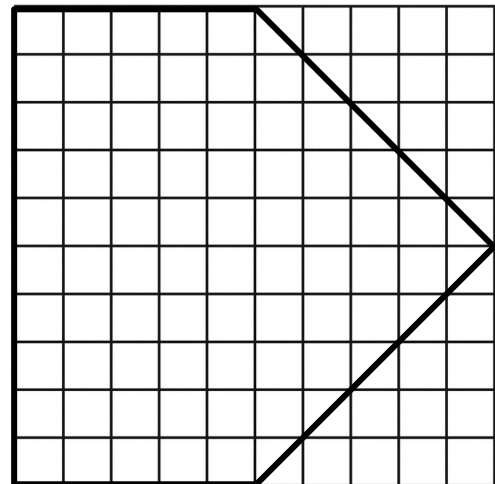
2. Find the area of the triangle. **49 in^2**



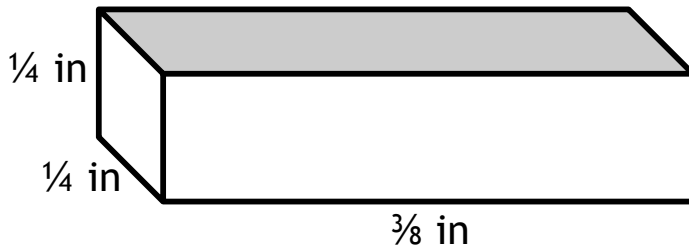
3. Find the area of the polygon. **65 units^2**



4. Find the area of the pentagon. **25 units^2**

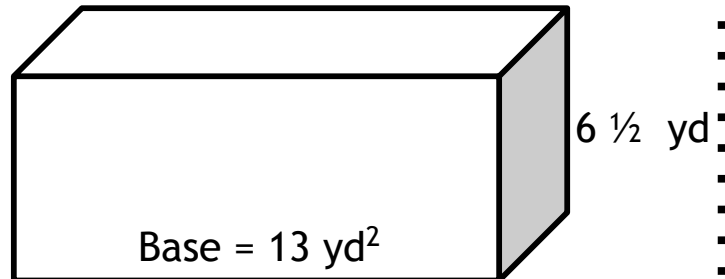


Find the volume.



$$\underline{3/128 \text{ in}^3}$$

Find the volume.



$$\underline{84 \frac{1}{2} \text{ yd}^3}$$

Solve the word problem correctly.

A cooler is in the shape of a right rectangular prism. If the cooler is $3 \frac{1}{2}$ feet long, $2 \frac{5}{8}$ feet wide, and 1 foot deep, what is the volume of the cooler?

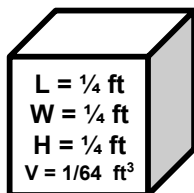
$$\underline{9 \frac{11}{12} \text{ ft}^3}$$

Solve the word problem correctly.

A cardboard box has edges of length $2 \frac{3}{8}$ in, $6 \frac{1}{2}$ in, and 3 in. What is the volume of the box?

$$\underline{50 \frac{7}{10} \text{ in}^3}$$

Fill the rectangular prism with cubes to find the volume.



$$\text{Volume} = \underline{3/64 \text{ ft}^3}$$

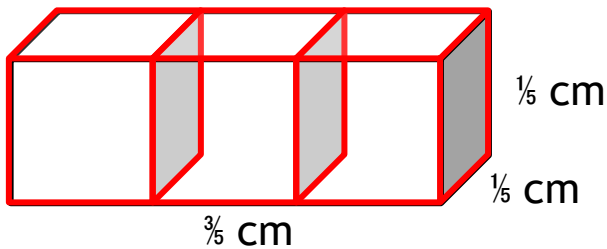
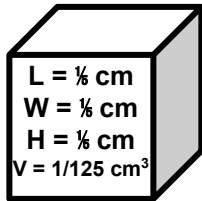


Volumes of Right Rectangular Prisms

Directions: Solve each problem.

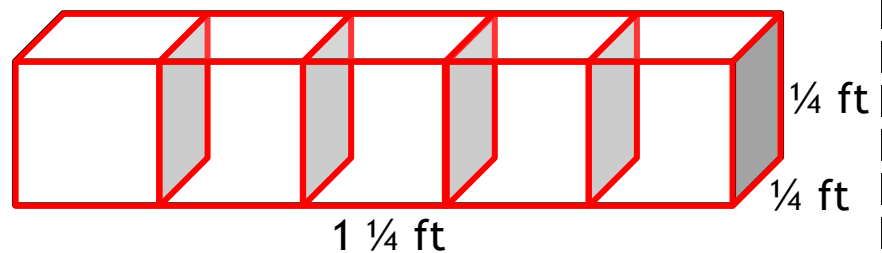
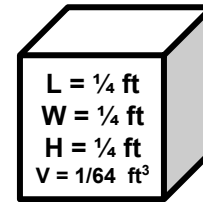
1. Fill the rectangular prism with cubes to find the volume.

Volume = **$\frac{3}{125} \text{ cm}^3$**



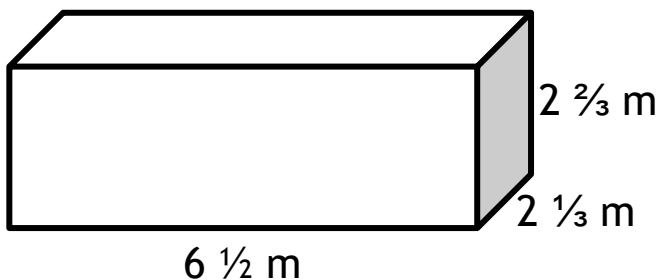
2. Fill the rectangular prism with cubes to find the volume.

Volume = **$\frac{5}{64} \text{ ft}^3$**



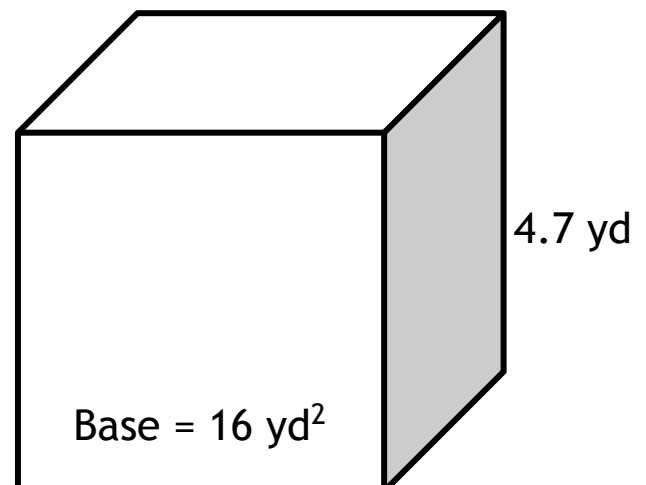
3. Find the volume.

Volume = **$40 \frac{4}{9} \text{ m}^3$**



4. Find the volume.

Volume = **75.2 yards^3**



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 $12\frac{3}{4}$ yards long, $5\frac{2}{3}$ yards wide, and 9 yards deep, what is the volume of the swimming pool?

650 $\frac{1}{4}$ yards³

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

127.6 inches³

2. The base of a rectangular prism has an area of 26.25 inches², and the height of the prism is 4.5 inches. What is the volume of the prism?

118 $\frac{1}{8}$ inches³

3. The base of a rectangular prism has an area of $13\frac{2}{3}$ meters², and the height of the prism is $8\frac{5}{6}$ meters. What is the volume of the prism?

120 $13/18$ meters³

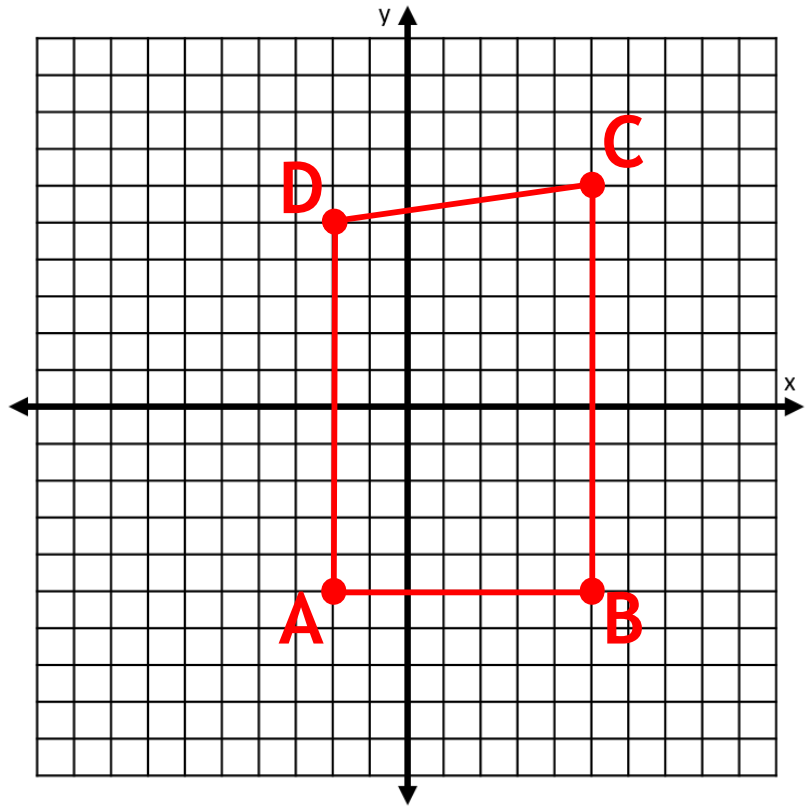
- Draw the quadrilateral ABCD whose vertices are A(-2, -5), B(5, -5), C(5, 6), D(-2, 5).

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

7

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

11



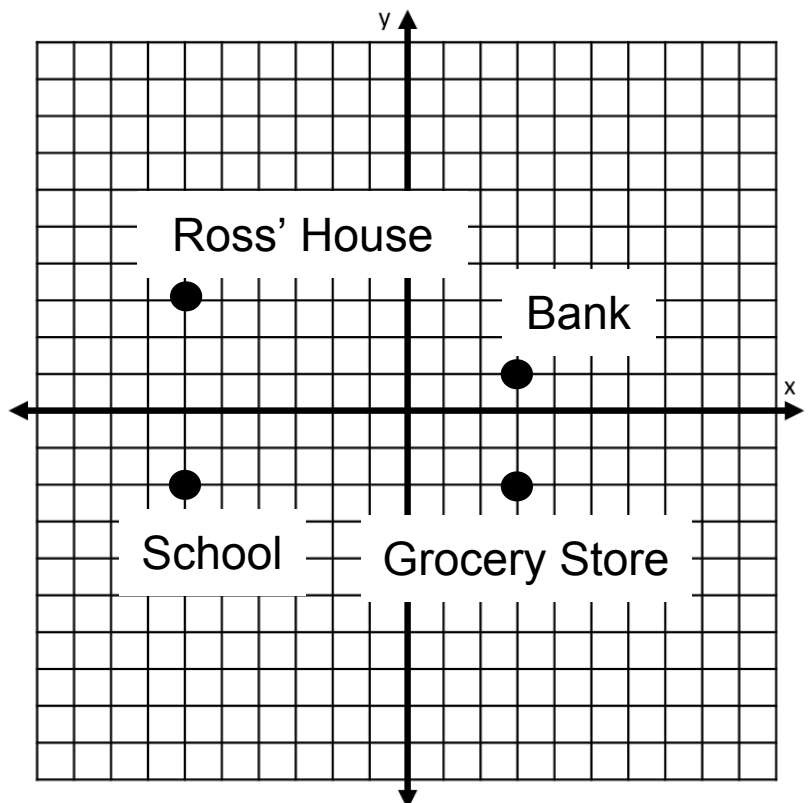
Solve each problem.

- 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? **5 miles**

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

9 miles



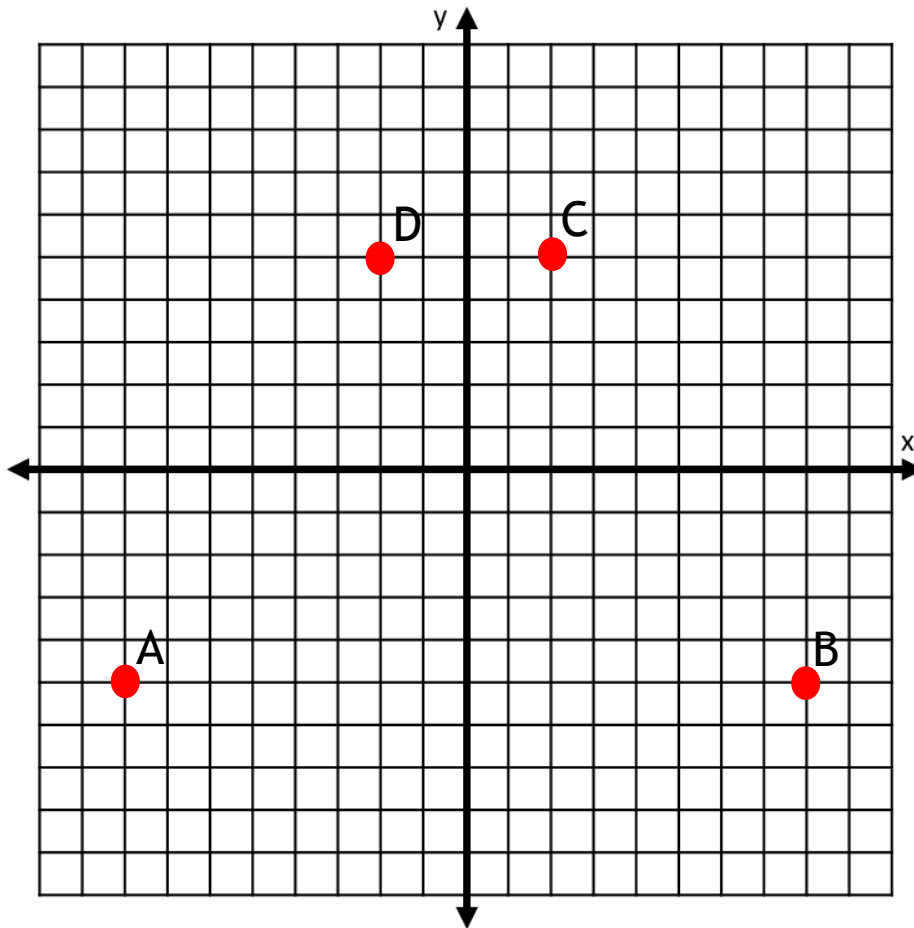
Polygons and Distances in the Coordinate Plane

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? 16 units

What is the length of the side between points C and D? 4 units



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? 19 units

What is the length of the side between points C and D? 13 units

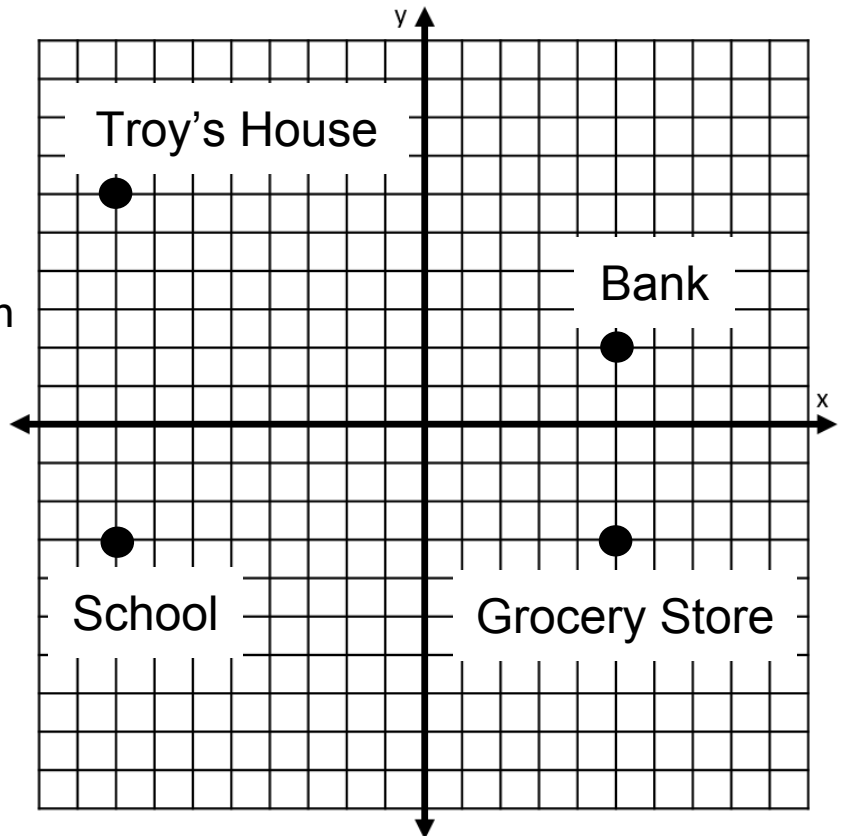
Polygons and Distances in the Coordinate Plane

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? **9 miles**

What is the the distance between the school and the grocery store? **13 miles**



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? **13 units**

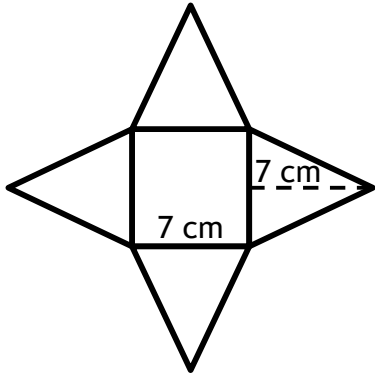
What is the length of the side between points B and C? **12 units**

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

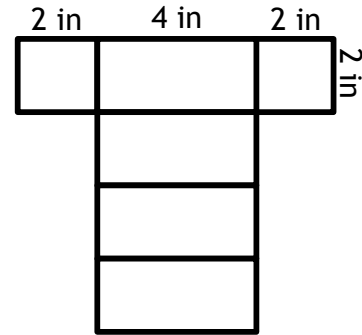
What is the length of the side between points A and B? **12 units**

What is the length of the side between points A and E? **6 units**

Find the surface area of the square-based pyramid using the net. **147 cm^2**



Find the surface area of the rectangular prism using the net. **40 in^2**



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?

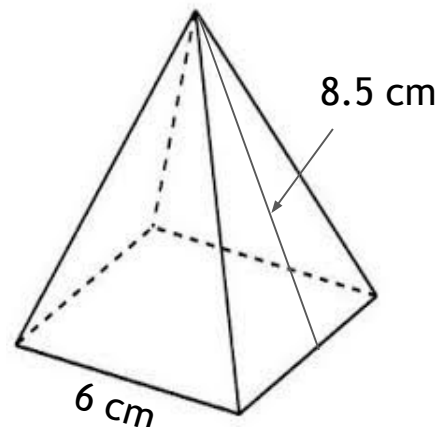
486 ft^2

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?

$\$1.48$

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?

138 cm^2

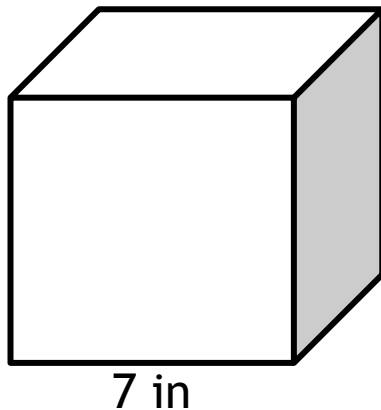


Surface Areas using Nets

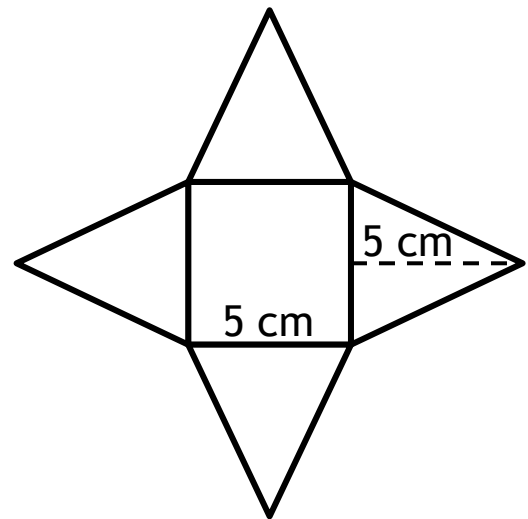
Directions: Solve each problem.

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

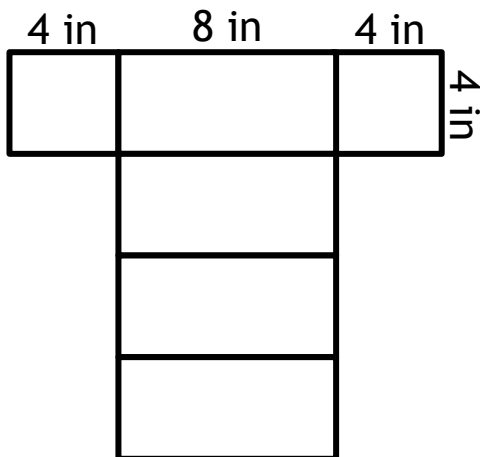
294 inches²



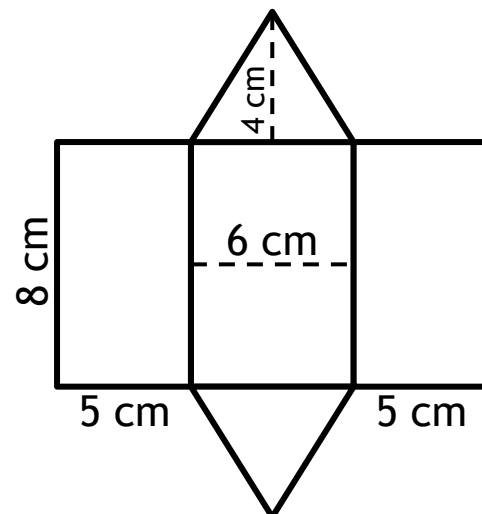
2. Find the surface area of the square-based pyramid using the net. **75 cm²**



3. Find the surface area of the rectangular prism using the net. **160 inches²**



4. Find the surface area of the triangular prism using the net. **152 cm²**



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?

586 feet²

2. Olivia bakes a rectangular cake that is $7\frac{1}{2}$ inches wide, 12 inches long and $2\frac{1}{4}$ inches high. If Judy frosts each side of the cake, what is the surface area of the cake she needs to frost?

267 $\frac{3}{4}$ inches²

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?

182 cm²

