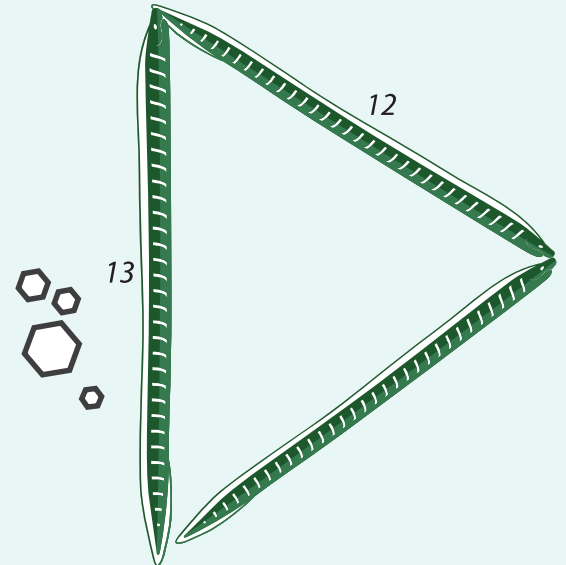
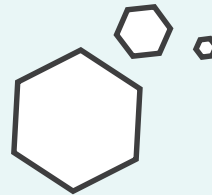
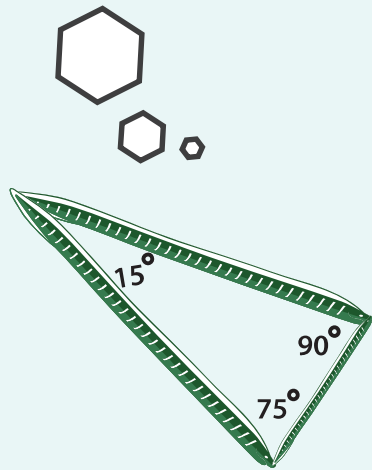
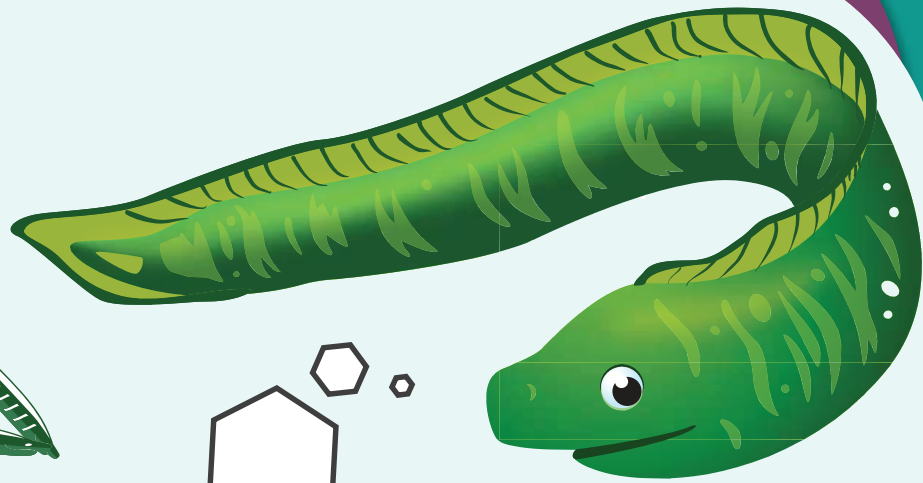
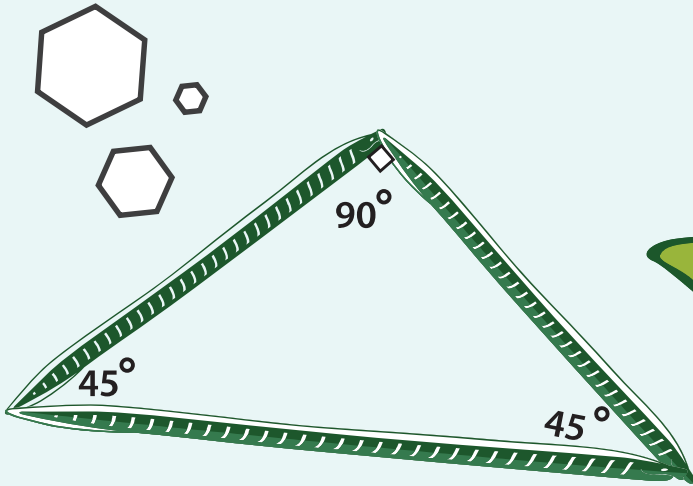


# Geometry & Measurement

4<sup>th</sup>  
Grade



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## Geometry and Measurement

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*Certificate of Completion*

*Answer Sheets*

*\* Has an Answer Sheet*

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# Acute Triangle: Practice Finding Area

Use the clues provided to find the area of each triangle. Show your work.

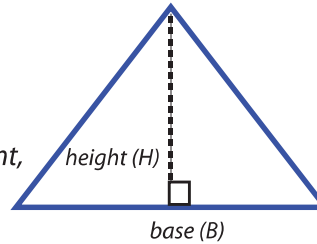
## Review:

$$\text{Triangle Area} = \frac{1}{2} \times \text{base} \times \text{height}$$

The base of a triangle can be any one of its sides.

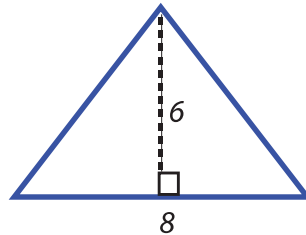
The height is the distance from a base to its opposite point, or vertex.

A base must be perpendicular to its height.



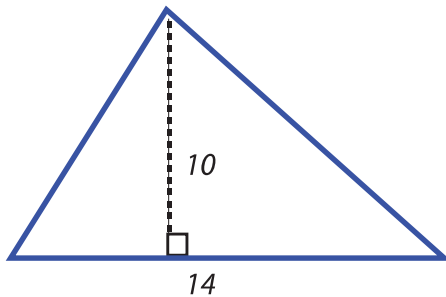
An acute triangle is a triangle that has three acute angles (angles that measure between 0 and 90 degrees).

## Example:



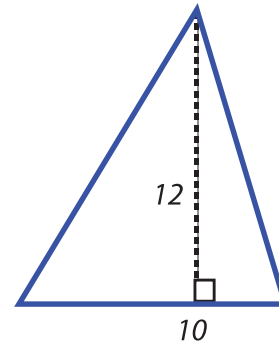
$$\begin{aligned} \text{Base} &= \underline{8} \text{ ft.} \\ \text{Height} &= \underline{6} \text{ ft.} \\ \text{Area} &= \frac{1}{2} \times 8 \times 6 \\ &= \underline{24} \text{ ft.} \end{aligned}$$

1



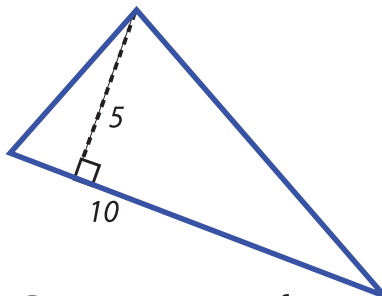
$$\begin{aligned} \text{Base} &= \underline{\hspace{2cm}} \text{ ft.} \\ \text{Height} &= \underline{\hspace{2cm}} \text{ ft.} \\ \text{Area} &= \\ &= \underline{\hspace{2cm}} \text{ sq.ft.} \end{aligned}$$

2



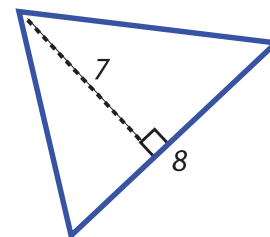
$$\begin{aligned} \text{Base} &= \underline{\hspace{2cm}} \text{ ft.} \\ \text{Height} &= \underline{\hspace{2cm}} \text{ ft.} \\ \text{Area} &= \\ &= \underline{\hspace{2cm}} \text{ sq.ft.} \end{aligned}$$

3



$$\begin{aligned} \text{Base} &= \underline{\hspace{2cm}} \text{ ft.} \\ \text{Height} &= \underline{\hspace{2cm}} \text{ ft.} \\ \text{Area} &= \\ &= \underline{\hspace{2cm}} \text{ sq.ft.} \end{aligned}$$

4



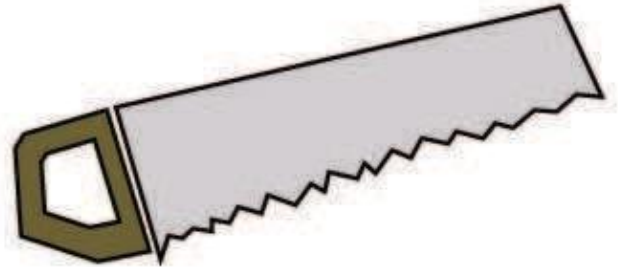
$$\begin{aligned} \text{Base} &= \underline{\hspace{2cm}} \text{ ft.} \\ \text{Height} &= \underline{\hspace{2cm}} \text{ ft.} \\ \text{Area} &= \\ &= \underline{\hspace{2cm}} \text{ sq.ft.} \end{aligned}$$

# Units of Measurement

Help Franky decide what is the best unit of measurement to bulid areas of his house!

1. Length of the bedroom

- a. Inches                      b. Miles
- c. Millimeters              d. Feet



2. Height of ceiling

- a. Feet                        b. Kilometers
- c. Miles                      d. Centimeters

3. Width of fence boards

- a. Miles                      b. Yards
- c. Inches                    d. Feet

4. Water for pool

- a. Cups                      b. Gallons
- c. Tablespoons            d. Liters

5. Length of lawn

- a. Centimeters            b. Kilometers
- c. Yards                    d. Inches

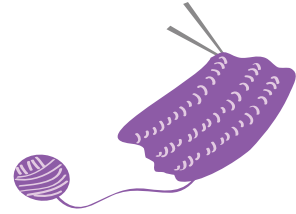


# Hours, Days, and Weeks

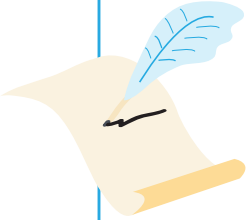
Answer the questions by converting the units of time.

Remember, 1 day equals 24 hours and 1 week equals 7 days.

Grandma knitted a scarf for me in 2 weeks. How many days did it take her?



Mr. Waterstone wrote a letter to Ms. Jacobs. It took 4 weeks to arrive. How many days did it take?



Tom rode a hot air balloon across the ocean. He was on the balloon for 3 days. How many hours was he on the balloon?



It took Mr. Carpenter a week and one day to fix the fence. How many hours did he spend fixing the fence?



Meg read a book in 3 weeks, 2 days, and 3 hours. How many hours did she spend reading the book?



# The Right Time

Answer the questions by converting the units of time.

Remember, 1 hour equals 60 minutes and 1 minute equals 60 seconds.

Pete and Sam practice singing 2 hours everyday. How many minutes do they practice each day?



Jenny plays her trumpet for 1 hour and 45 minutes every evening. How many minutes does she practice each night?



Lynn gives a piano lesson after school everyday. Today she taught for 95 minutes. How many hours did she teach today?



Amy played flute during her recital. The song lasted for 303 seconds. How many minutes did she play?



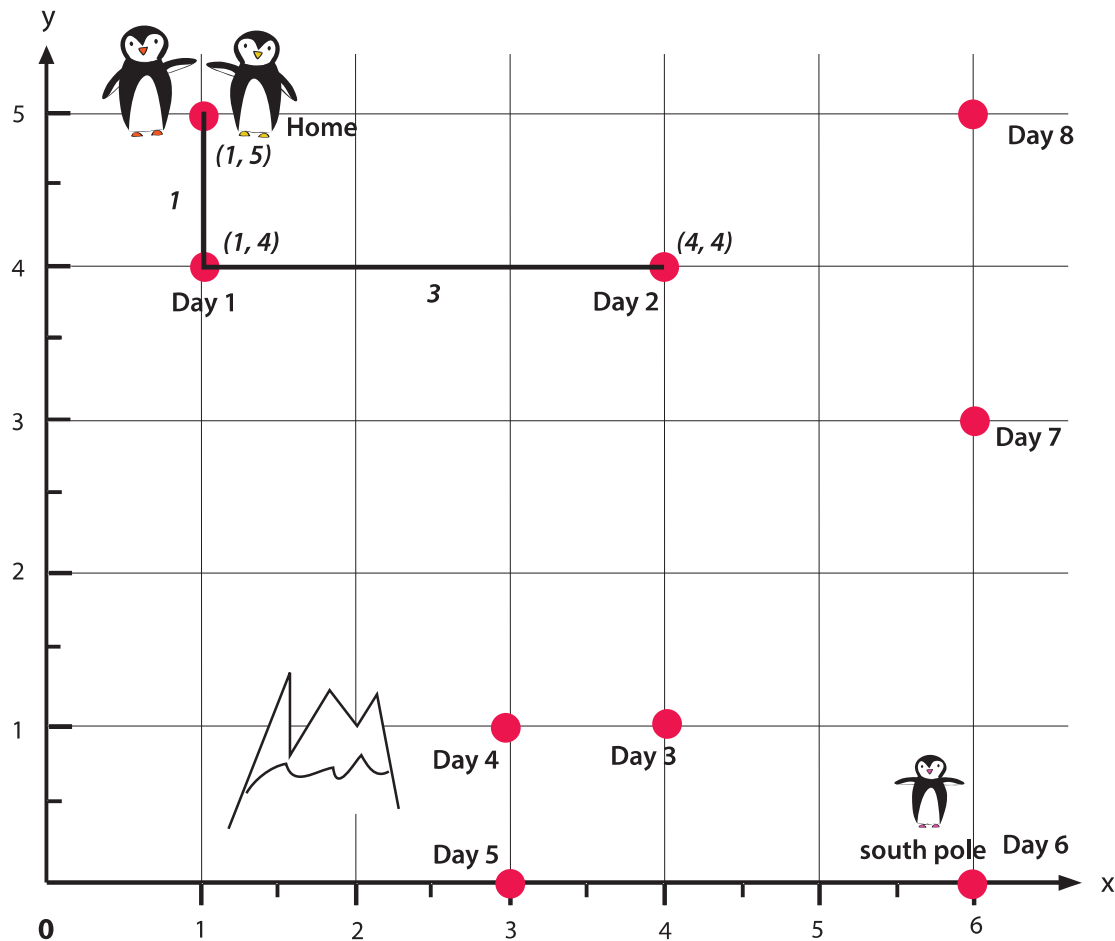
Denny danced to all the songs on his mp3 player. His mp3 player has 200 minutes and 180 seconds of music. How many hours did he dance?



## Traveling to the South Pole: Practice Coordinates and Perimeter

The penguin parents are traveling to the South Pole to pick up their baby, stopping at each point on the grid along the way. Then together, the three of them will go back home in a different route. See how far their route is by finding the distance between the coordinates (see examples below).

**Review:** *The first number refers to X coordinate. The second number refers to Y coordinate.*



### Example:

**Day 1:** Distance between home (1, 5) to Day 1 stop (1, 4). Subtract difference of Y-value of each location. Y value of home = 5, Y value of Day 1 stop = 4.

Therefore, the distance is  $5 - 4 = 1$ . Then draw a line from each point and write 1.

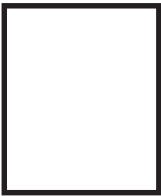
**Day 2:** Distance between Day 1 stop (1, 4) to Day 2 stop (4, 4). Subtract difference of X-value of each location. X value of Day 2 stop = 4, X value of Day 1 stop = 1.

Therefore, the distance is  $4 - 1 = 3$ . Then draw a line from each point and write 3.

# PERIMETER MATCH

Find the *perimeter* of each rectangle, then draw at least 2 rectangles that have the same perimeter.


4 ft



6 ft


20 ft

5 ft



5 ft


5 ft



3 ft

\_\_\_\_\_

12 ft



2 ft

\_\_\_\_\_



Find area of each triangle using clues from the lengths provided. Show your work.

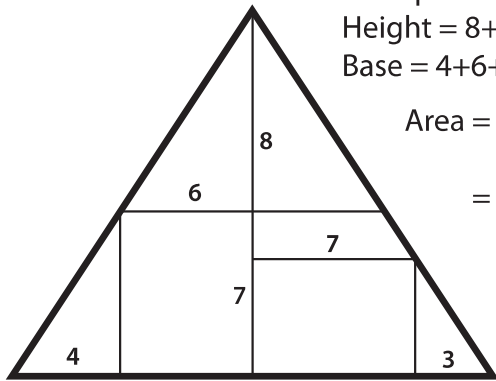
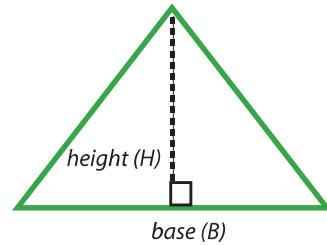
**Review:**

**Triangle Area** =  $\frac{1}{2}$  x base x height

The height of a triangle is the distance from the base to its opposite vertex, or angle.

The base of a triangle can be any of its sides.

The height line and base must be perpendicular to each other.

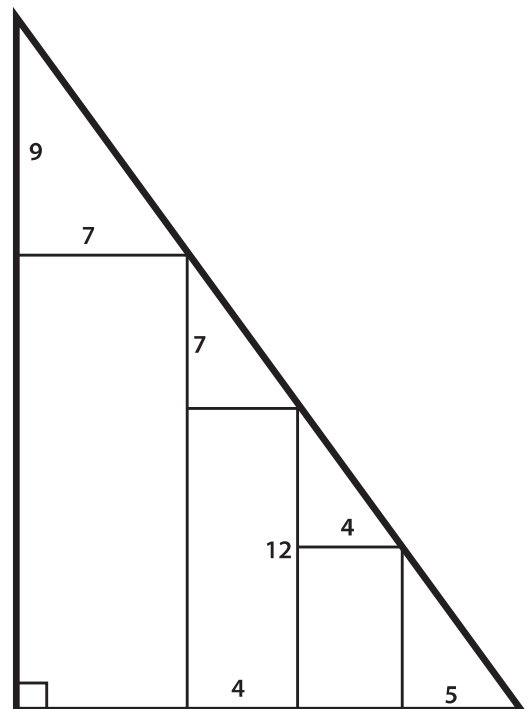
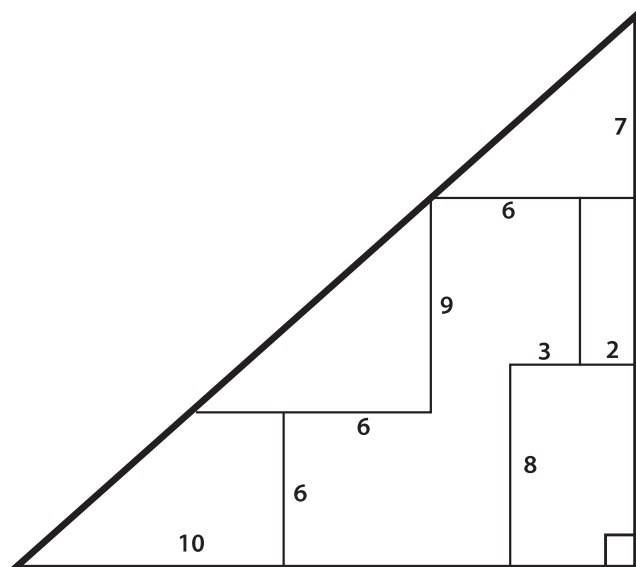
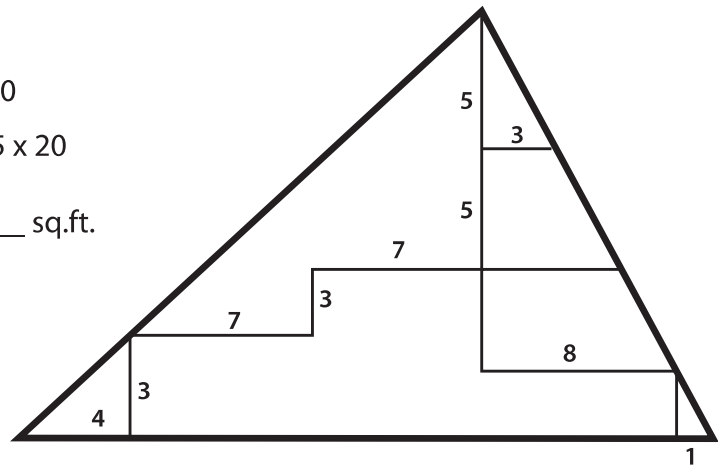


Example:

Height =  $8+7 = 15$

Base =  $4+6+7+3 = 20$

Area =  $\frac{1}{2} \times 15 \times 20$   
 = 150 sq.ft.



# Obtuse Triangle: Practice Finding Area

Use the clues provided to find the area of each triangle. Show your work.

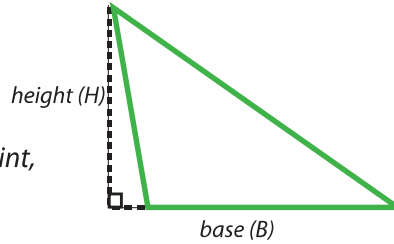
## Review:

**Triangle Area** =  $\frac{1}{2}$  x base x height

The base of a triangle can be any one of its sides.

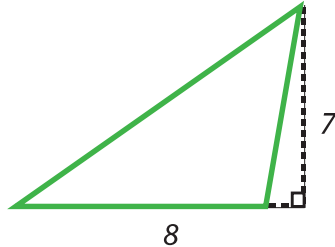
The height is the distance from a base to its opposite point, or vertex.

A base must be perpendicular to its height.



An obtuse triangle is a triangle that has one obtuse angle (an angle that is greater than 90 degrees).

## Example:



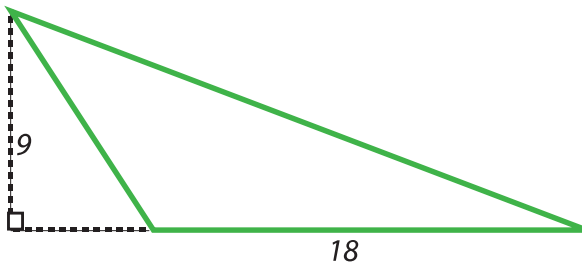
$$\text{Base} = \underline{8} \text{ ft.}$$

$$\text{Height} = \underline{7} \text{ ft.}$$

$$\text{Area} = \frac{1}{2} \times 8 \times 7$$

$$= \underline{28} \text{ ft.}$$

1



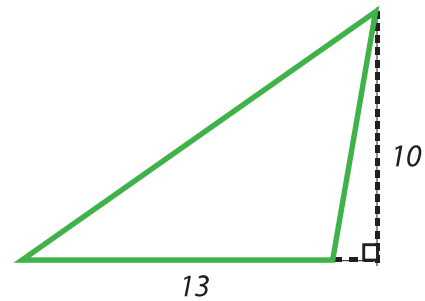
$$\text{Base} = \underline{\hspace{2cm}} \text{ ft.}$$

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

$$\text{Area} =$$

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

2



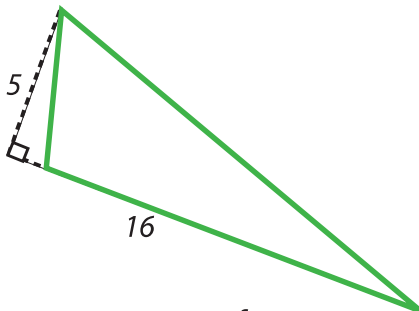
$$\text{Base} = \underline{\hspace{2cm}} \text{ ft.}$$

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

$$\text{Area} =$$

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

3



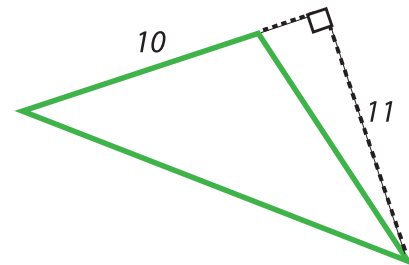
$$\text{Base} = \underline{\hspace{2cm}} \text{ ft.}$$

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

$$\text{Area} =$$

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

4



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

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

$$\text{Area} =$$

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