

## 9.2 Area of a Triangle

***Objective: To calculate the area of a triangle***



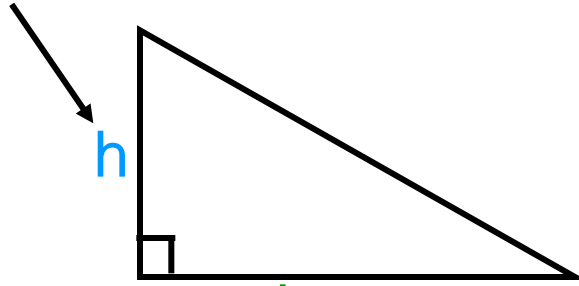
# Activity

- 1) Find the area of a index card
- 2) With the index card, draw a diagonal line across the index card from one corner to another
- 3) Find the area of one of the remaining triangles



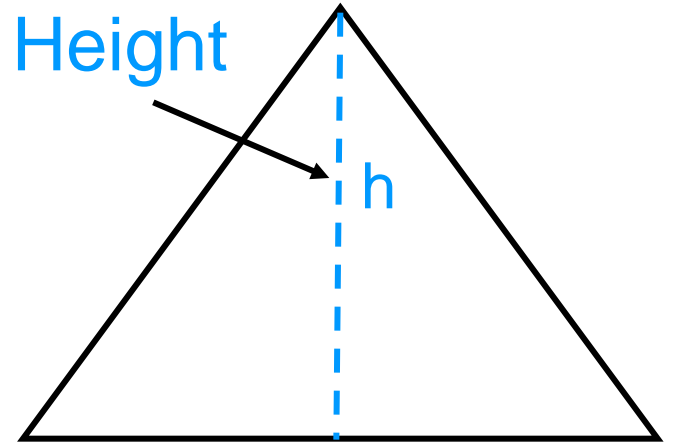
# Parts of a Triangle

Height

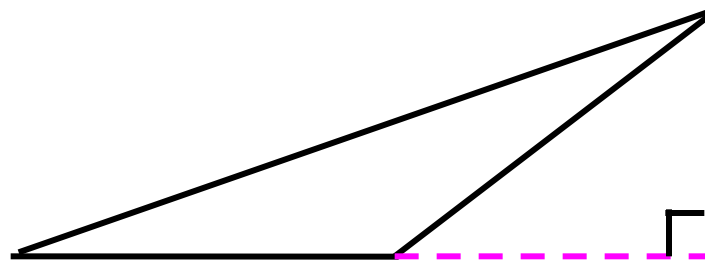


$b$   
Base

Height



$b$   
Base



$h$  Height

$b$   
Base

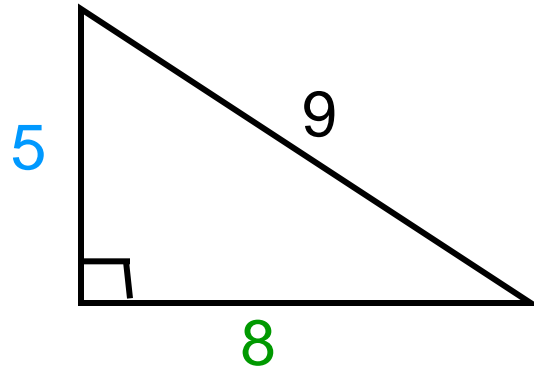
# Area of a Triangle

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

$$A = \frac{1}{2} b \bullet h$$

# Find the area of the triangle

1)



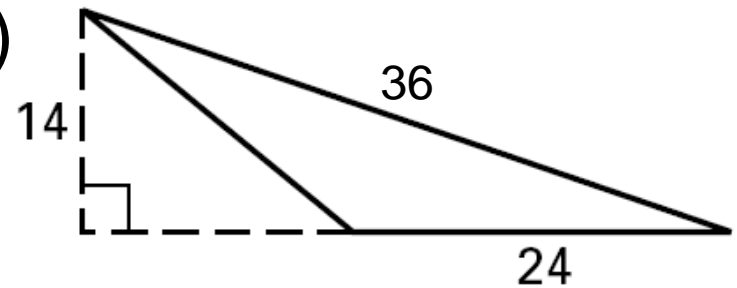
$$b = 8 \quad h = 5$$

$$A = \frac{1}{2} b \cdot h$$

$$A = \frac{1}{2} \cdot 8 \cdot 5$$

$$A = 20$$

2)




$$b = 24 \quad h = 14$$

$$A = \frac{1}{2} b \cdot h$$

$$A = \frac{1}{2} \cdot 24 \cdot 14$$

$$A = 168$$



3)  $b = 8, h = 6$

$$A = \frac{1}{2}b \cdot h$$

$$A = \frac{1}{2} \cdot 8 \cdot 6$$

$$A = 24$$

4)  $b = 4, h = 3.2$

$$A = \frac{1}{2}b \cdot h$$

$$A = \frac{1}{2} \cdot 4 \cdot 3.2$$

$$A = 6.4$$