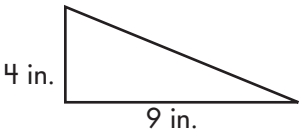
NAME _____

Lesson 6.1 Calculating Area: Triangles

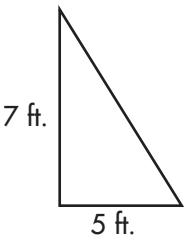
The area (A) of a triangle is one-half the of the base (b) times the height (h).



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

or

$$A = \frac{1}{2}bh$$



$A = \frac{1}{2} \times 9 \times 4$

$= \frac{1}{2} \times 36$

$= 18$

$A = 18$ square inches

$A = \frac{1}{2} \times 5 \times 7$

$= \frac{1}{2} \times 35$

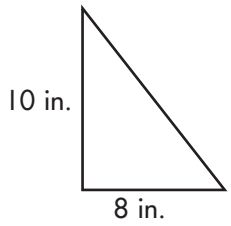
$= 17\frac{1}{2}$

$A = 17\frac{1}{2}$ square feet

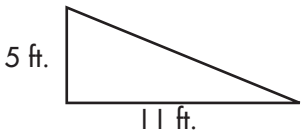
Find the area of each right triangle.

a **b**

1.

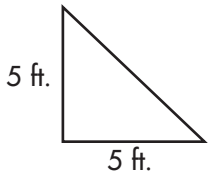


$A =$ _____ sq. in.

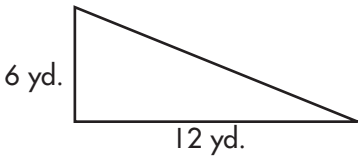


$A =$ _____ sq. ft.

2.



$A =$ _____ sq. ft.

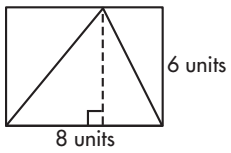


$A =$ _____ sq. yd.

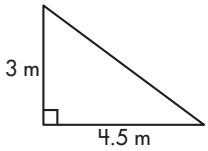
NAME _____

Lesson 6.1 Calculating Area: Triangles

The area of a triangle is related to the area of a rectangle.



The dashed line indicates the height of the triangle.
rectangle: $A = 8 \times 6 = 48$ sq. units
triangle: $A = \frac{1}{2}(8)(6) = 24$ sq. units



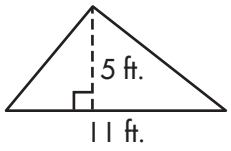
$A = \frac{1}{2}(4.5)(3) = 6\frac{3}{4}$ sq. m

Notice that in a right triangle the height is the length of one of the legs. This is not the case with acute and obtuse triangles.

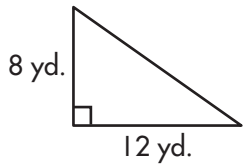
Find the area of each triangle below.

a **b** **c**

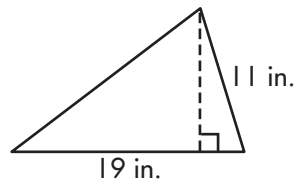
1.



$A =$ _____ sq. ft.

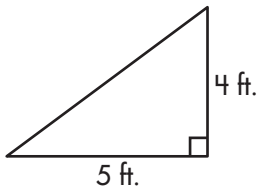


$A =$ _____ sq. yd.

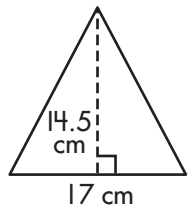


$A =$ _____ sq. in.

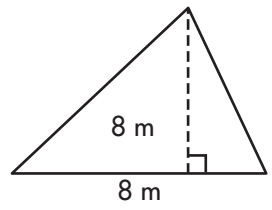
2.



$A =$ _____ sq. ft.



$A =$ _____ sq. cm



$A =$ _____ sq. m