

**$45^\circ - 45^\circ - 90^\circ$  &  $30^\circ - 60^\circ - 90^\circ$  TRIANGLES**

Find the indicated length for each of the following.

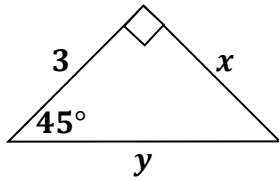
_____ 1.	The length of a diagonal of a square is $10\sqrt{2}$ inches. Find the length of one side of the square.
_____ 2.	The length of an altitude of an equilateral triangle is $\frac{\sqrt{3}}{2}$ feet. Find the length of one side of the triangle.
_____ 3.	The perimeter of a square is 44 meters. Find the length of a diagonal of a square.
_____ 4.	The length of one side of a square is 13 centimeters. Find the length of a diagonal of the square.
_____ 5.	The length of the diagonal of a square is 10 inches. Find the length of one side of the square.

_____6.	The length of one side of an equilateral triangle is $6\sqrt{3}$ meters. Find the length of one altitude of the triangle.
_____7.	The length of an altitude of an equilateral triangle is 12 feet. Find the length of a side of the triangle.
_____8.	The perimeter of an equilateral triangle is 39 centimeters. Find the length of the altitude of the triangle.
_____9.	The length of a diagonal of a square is $18\sqrt{2}$ millimeters. Find the perimeter of the square.
_____10.	The altitude of an equilateral triangle is 6 meters long. Find the perimeter of the triangle.

Find the values of 'x' and 'y'.

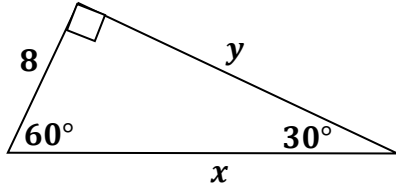
11.  $x =$  \_\_\_\_\_

$y =$  \_\_\_\_\_



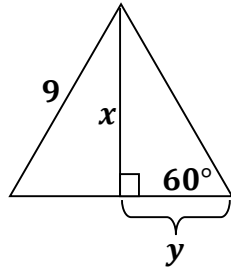
12.  $x =$  \_\_\_\_\_

$y =$  \_\_\_\_\_



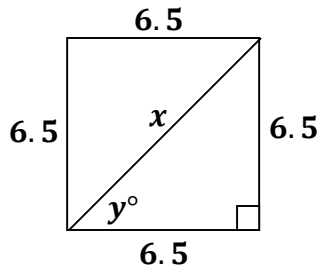
13.  $x =$  \_\_\_\_\_

$y =$  \_\_\_\_\_



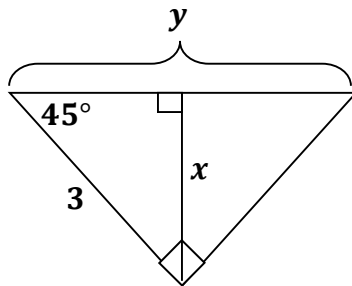
14.  $x =$  \_\_\_\_\_

$y =$  \_\_\_\_\_



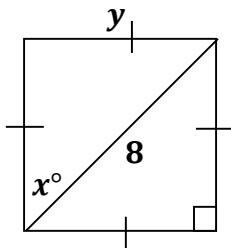
15.  $x =$  \_\_\_\_\_

$y =$  \_\_\_\_\_



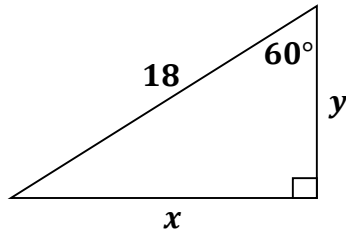
16.  $x =$  \_\_\_\_\_

$y =$  \_\_\_\_\_



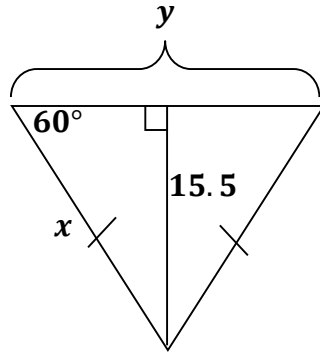
17.  $x =$  \_\_\_\_\_

$y =$  \_\_\_\_\_



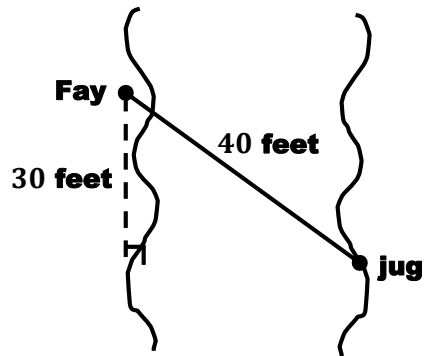
18.  $x =$  \_\_\_\_\_

$y =$  \_\_\_\_\_



19. \_\_\_\_\_

Fay needed to find the distance across a river. She tied a rope to an empty jug and tried to throw it across the river. When the jug washed ashore, it was 30 feet downstream. The distance between Fay and the jug was 40 feet. To the nearest hundredth of a foot, what was the distance across the river?



20. \_\_\_\_\_

What is the length of the base of the triangle shown below?

