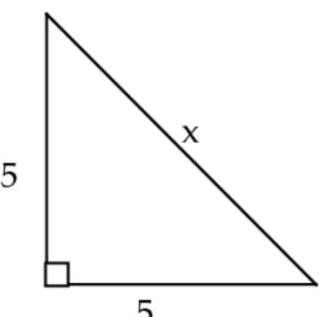
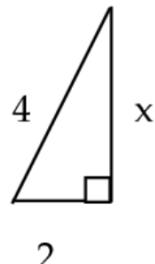
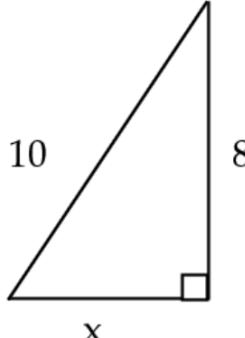
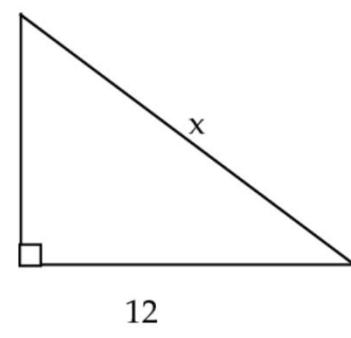


Section 12.6 Worksheet

Name: _____

Find the unkown lengths of the right triangle.

- 1.)  A right triangle with a vertical leg of length 5, a horizontal leg of length 5, and a hypotenuse of length x . A right angle symbol is at the vertex where the two legs meet at the bottom-left corner.
- 2.)  A right triangle with a vertical leg of length 4, a horizontal leg of length 2, and a hypotenuse of length x . A right angle symbol is at the vertex where the horizontal leg meets the hypotenuse at the bottom-right corner.
- 3.)  A right triangle with a vertical leg of length 10, a horizontal leg of length 8, and a hypotenuse of length x . A right angle symbol is at the vertex where the horizontal leg meets the hypotenuse at the bottom-right corner.
- 4.)  A right triangle with a vertical leg of length 8, a horizontal leg of length 12, and a hypotenuse of length x . A right angle symbol is at the vertex where the vertical leg meets the hypotenuse at the bottom-left corner.

Let a and b represent the lengths of the legs of a right triangle and let c represent the length of the hypotenuse. Find the unkown length.

5.) $a = 6, b = 30$

6.) $a = 15, c = 25$

7.) $b = 3, c = 5$

8.) $a = 2, b = 8$

Determine whether the given lengths are sides of a right triangle.

9.) 8, 16, 18

10.) 11, 60, 61

11.) 9, 15, 20

REVIEW:

Solve the equation. Check for extraneous solutions.

12.) $\sqrt{3x - 12} = \sqrt{5x - 26}$

13.) $3\sqrt{4x + 1} - 2 = 25$

Simplify the expression.

14.) $\sqrt{98}$

15.) $\sqrt{63}$

16.) $\sqrt{\frac{3}{5}}$