Geometry

7.1 Apply the Pythagorean Theorem

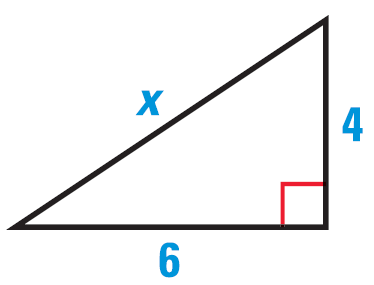
## Pythagorean Theorem

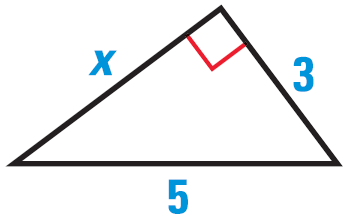
legs

right

In a \_\_\_\_\_\_\_\_\_\_\_\_ triangle, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ where a and b are the length of the \_\_\_\_\_\_ and c is the length of the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

hypotenuse

Find the value of x

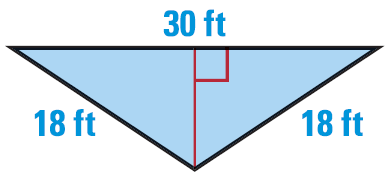
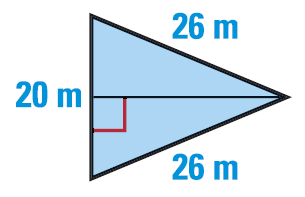


The top of a ladder rests against a wall, 23 ft above the ground. The base of the ladder is 6 ft away from the wall. What is the length of the ladder?

Find the area of the triangle

Find height:

Use pythagorean theorem to find height:



# Pythagorean Triples

Pythagorean

three

A set of \_\_\_\_\_\_\_\_\_\_ positive integers that satisfy the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Theorem

7, 24, 25

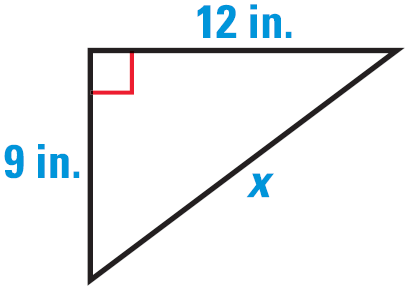
8, 15, 17

5, 12, 13

3, 4, 5

\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_

Use a Pythagorean Triple to solve



Triple is 9, 12, 15

x = 15

Assignment: 436 #4-34 even, 40-50 even = 22