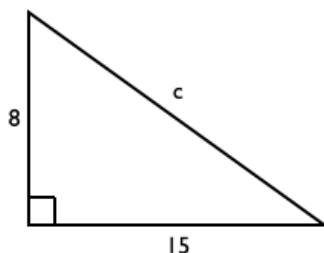# 5.3 Geometry: Pythagorean Theorem

In this worksheet, we will work on finding missing sides of right triangles by using the Pythagorean theorem. If you would like to review the basics, links to video descriptions can be found at the end of this worksheet. Starred problems have video solutions.

1 Find side length c.

2 * In order to reach the top of a tree, you decide to use a 13-foot ladder. If the tree is 12 feet tall, how far away must the bottom of the ladder be from the base of the tree?

(a) 5 feet

(b) 7 feet

(c) 4 feet

(d) 6 feet

3 From his house, Jordan drives 30 miles North, takes a right, and then drives 40 miles East to get to his cabin. How far away is his cabin from his house?

(a) 50 miles

(b) 40 miles

(c) 30 miles

(d) 55 miles

4 A right triangle has legs with lengths 7 and 24. What is the length of the hypotenuse?

(a) 25

(b) 24

(c) 7

(d) 30

5 Which of the following is not a Pythagorean triple?

    (a) 3-4-5

    (b) 5-12-13

    (c) 12-13-28

    (d) 9-12-13

Additional Resources:

- For review on Pythagorean Theorem: `http://youtu.be/AEIzy1kNRqo`

- Worked out examples of problems not on the worksheet:

    1. `http://youtu.be/JVrkLIcA2qw`

    2. `http://youtu.be/O64YFlX1_aI`

    3. `http://youtu.be/TOIOrRETWhI`

- Video solution to question 2 on this worksheet: `http://youtu.be/sQZotGDjUGU`