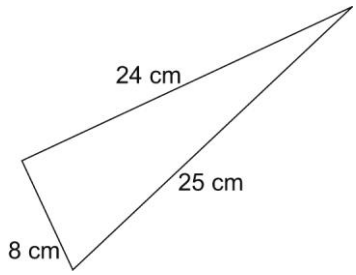
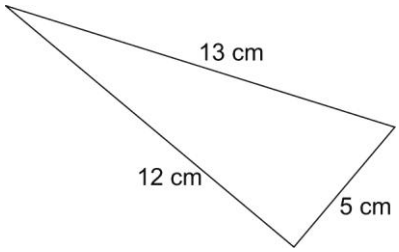
Lesson 1.6: Exploring the Pythagorean Theorem

1. Which of the triangles below appears to be a right triangle?
Determine whether each triangle is a right triangle.
Justify your answers.

a)



b)



2. Each set of measurements below represents the side lengths of a triangle.
Identify which triangles are right triangles.
How do you know?

a) 3 cm, 4 cm, 6 cm
b) 7 m, 24 m, 25 m
c) 6 cm, 8 cm, 10 cm
d) 1 m, 2 m, $\sqrt{5}$ m
e) 2 m, 3 m, $\sqrt{12}$ m

3. Which sets of numbers below are Pythagorean triples?
a) 20, 21, 29 **b)** 11, 34, 35 **c)** 20, 101, 99 **d)** 30, 34, 16

4. Two numbers in a Pythagorean triple are 77 and 85.
Find the third number.

5. A triangle has side length of 5 cm, $\sqrt{96}$ cm and 11 cm.

a) Is this triangle a right triangle?

b) Do these side lengths form a Pythagorean triple? Explain.