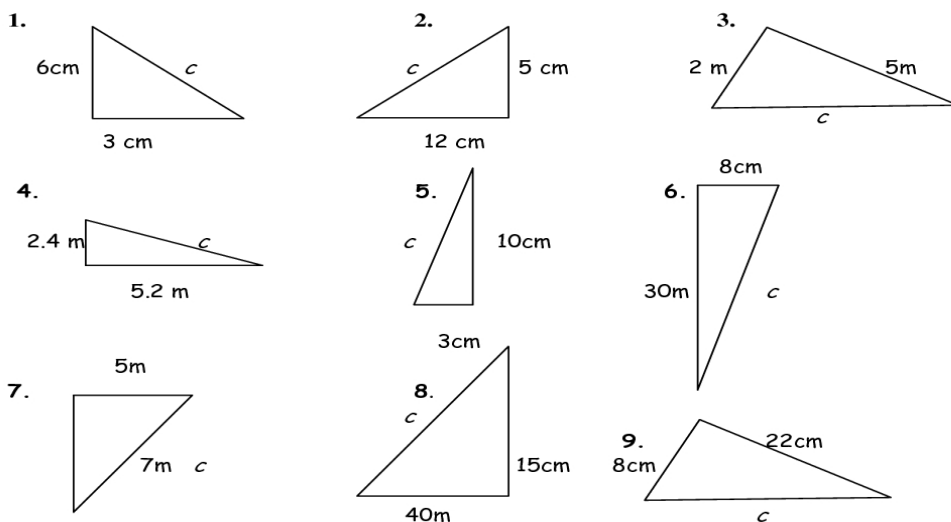# The Pythagorean Theorem

Directions: Find the length of the missing side in the following examples. Round answers to the nearest tenth, if necessary.

1.

6cm c

3 cm

2.

c 5 cm

12 cm

3.

2 m   5m

c

4.

2.4 m c

5.2 m

5.

c 10cm

3cm

6.

8cm

30m c

7.

5m

7m c

8.

c

15cm

40m

9.

22cm

8cm

c

What is the length of the hypotenuse, c, of the following right angle triangles?

10.   a = 3 ;   b = 4 ;   c = ?
11.   a = 6 ;   b = 8 ;   c = ?

12. A ladder is leaning against the side of a 10m house. If the base of the ladder is 3m away from the house, how tall is the ladder?