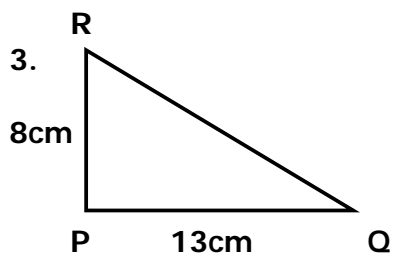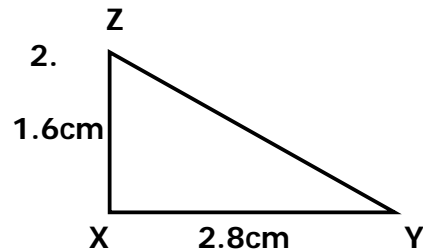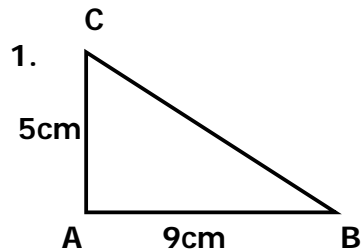# Practising Pythagoras

Draw diagrams to help you answer all of these questions. Give answers correct to two decimal places.

1.

C

5cm

A   9cm   B

2.

Z

1.6cm

X   2.8cm   Y

3.

R

8cm

P   13cm   Q

4.

N

62cm

L   81cm   M
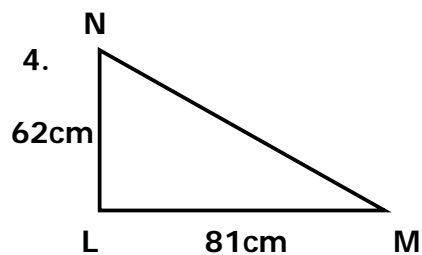
5. In a triangle abc, angle a = 90 degrees, ab = 11.3 cm,
   bc = 15.2 cm. Find ac.

6. In a triangle abc, angle a = 90 degrees, ab = 14 cm,
   bc = 15 cm. Find ac.

7. In a triangle abc, angle a = 90 degrees, ab = 0.03 cm,
   bc = 0.05 cm. Find ac.

8. A is a point (3 , 1) and point B is the point (7 , 9). Find
   the length of AB.

9. A ship sails 32 nautical miles due north then sails 22 nautical
   miles due east. How far is it from its starting point ?

10. The diagonal AC of a rectangle ABCD is 0.67 m long and side
    Ab is 0.32 m long. How long is side BC ?

Answers

1. 10.296 cm   (3 d pl)
2. 3.225 cm   (3 d pl)
3. 12.042 cm   (3 d pl)
4. 102.005 cm   (3 d pl)
5. 10.166 cm   (3 d pl)
6. 5.385 cm   (3 d pl)
7. 0.04   cm   (2 d pl)
8. To get from point (3 , 1)   to   (7 , 9) we rise 4 and run 8
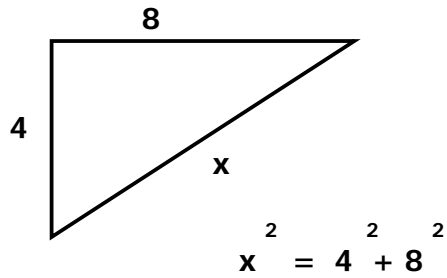
$$x^2 = 4^2 + 8^2$$

$$x = 8.944 \ (3 \ d \ pl)$$

9.   38.833 nautical miles (3 d pl)

10.   0.5886 m (3 d pl)