



# Year 8 Mathematics

## Pythagoras' Theorem Practice Test 2

Name \_\_\_\_\_

1 Use your calculator to find the value of each of the following

- a)  $5^2$                       b)  $3.5^2$                       c)  $6^2 + 8^2$                       d)  $50^2 - 40^2$

2 Use your calculator to find the values of

- a)  $\sqrt{196}$                       b)  $\sqrt{900}$                       c)  $\sqrt{64}$                       d)  $\sqrt{121}$

3 Calculate the square root of each of these numbers, correct to two decimal places

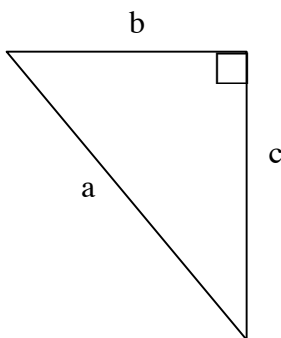
- a) 12                      b) 450                      c) 1001                      d) 80

4 Find the value of each of these, correct to one decimal place

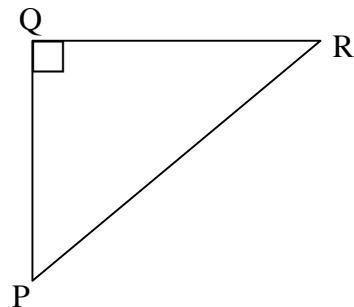
- a)  $\sqrt{12^2 - 5^2}$                       b)  $\sqrt{5^2 + 7^2}$                       c)  $\sqrt{(1.5)^2 + (4.2)^2}$                       d)  $\sqrt{(12.5)^2 - (7.1)^2}$

5 Name the hypotenuse in each of these triangles

a)

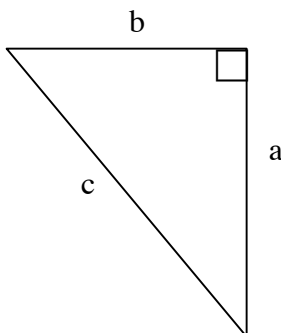


b)

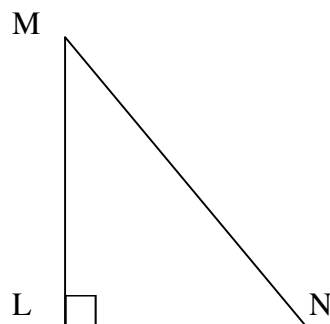


6 Write Pythagoras' Theorem for these triangles

a)

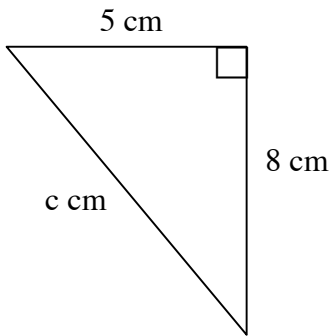


b)

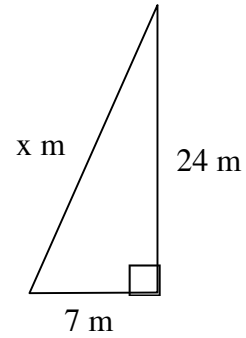


7 Find the value of the pronumeral in these triangles. (Give your answer correct to 2 decimal places if necessary)

a)

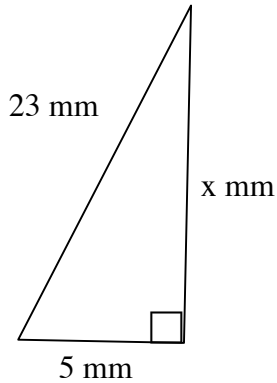


b)

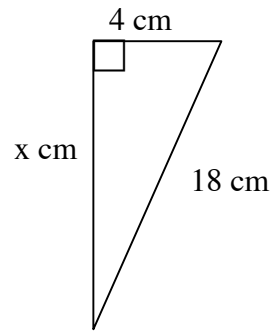


8 Find the value of the pronumeral in these triangles. (Give your answer correct to 2 decimal places if necessary)

a)

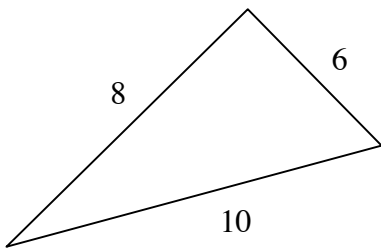


b)

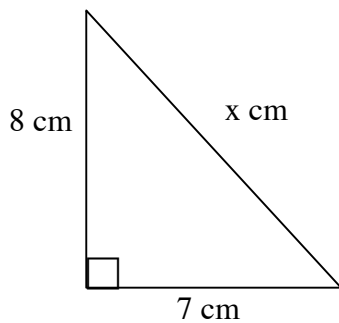


9 Find the length of the diagonal of a square with sides 20 cm correct to 2 decimal places

10 Is this a right angled triangle



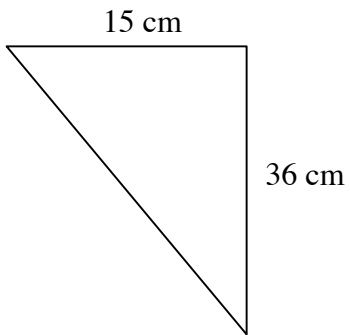
11 Find the value of  $x$  as a surd



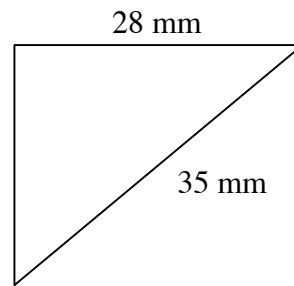
12 Do the numbers 5, 8, 10 form a Pythagorean triad?

13 Find the perimeter of each of these shapes, correct to one decimal place

a)

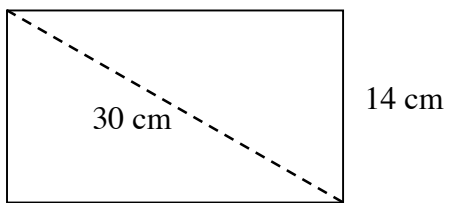


b)



14 Find the area of each of these shapes, correct to one decimal place

a)



b)

