

Master Maths 9 Worksheet 72

Pythagoras' Theorem 2

72

Name: _____

Give all answers on this worksheet correct to one decimal place.

1. Circle three numbers in the following set that form a Pythagorean triad.

15 17 21 36 38 39

2. Perform these calculations.

(a) $\sqrt{3^2 + 8^2}$

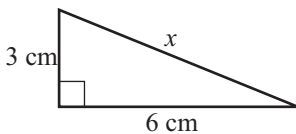
(b) $\sqrt{2.1^2 + 7.1^2}$

(c) $\sqrt{9.3^2 - 1.4^2}$

(d) $\sqrt{0.2^2 - 0.01^2}$

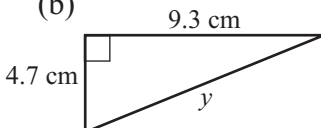
3. Find the unknown sides in these triangles.

(a)



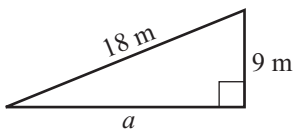
$x =$ cm

(b)



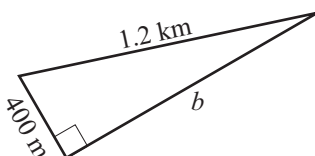
$y =$ cm

(c)



$a =$ m

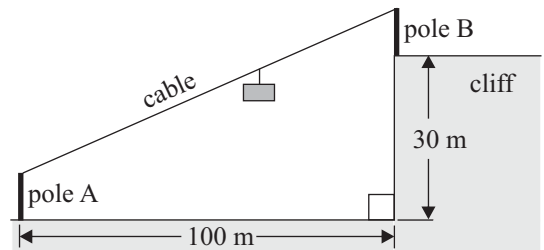
(d)



$b =$ km

4. Mary went bushwalking. She walked 7.2 km due north and then 8.4 km due east. How far was she from her starting point?

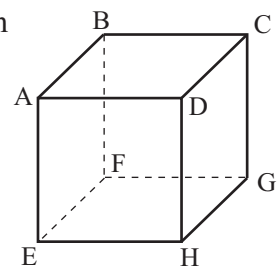
5. A flying fox is to be made between pole A on the ground and pole B on top of a 30 m high cliff. Pole A is 100 m from the base of the cliff and both poles are 3 metres long.



What length of cable is required between the tops of poles A and B?

6. A **cube** of side length 5 cm is shown below.

- (a) Calculate the length of diagonal EG.



- (b) Calculate the length of the body diagonal AG.