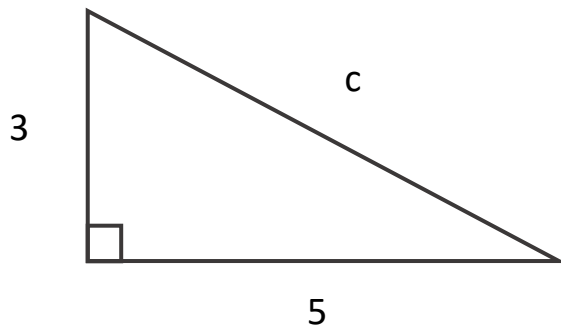


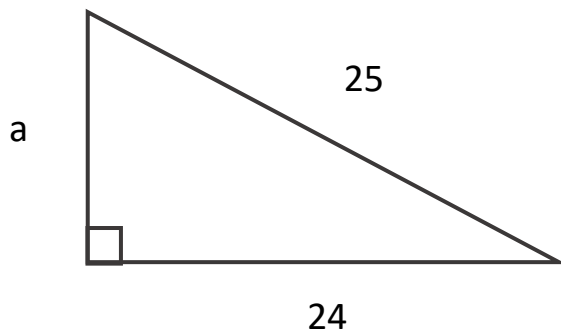


## Pythagoras' Theorem – Questions

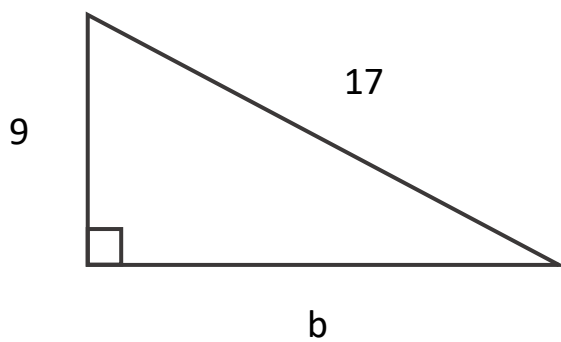
Q1) a) Find the missing side,  $c$ , in the following right-angled triangle.



b) Find the missing side,  $a$ , in the following right-angled triangle.

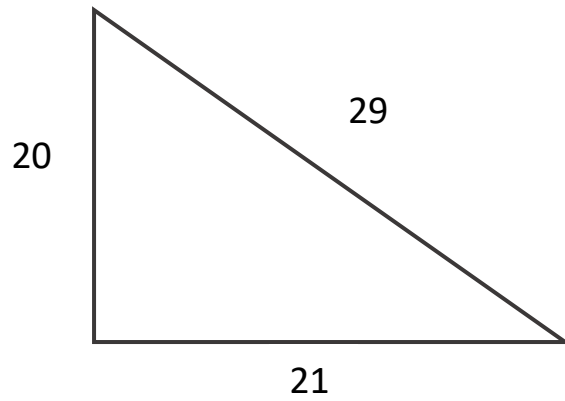


c) Find the missing side,  $b$ , in the following right-angled triangle.

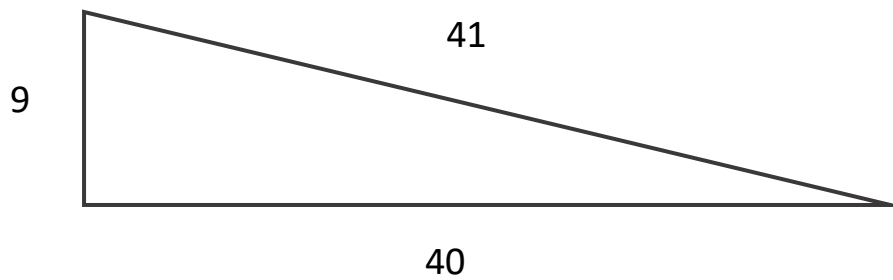




Q2) a) Show that the triangle with short sides 20 & 21 and long side 29 is a right-angled triangle.

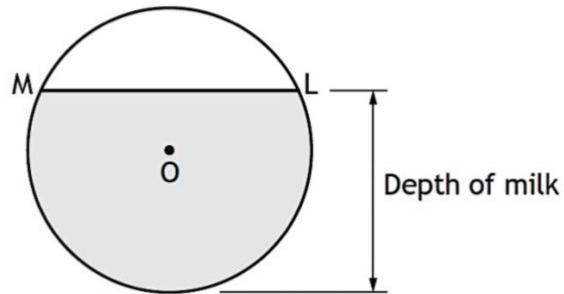


b) Is the triangle with short sides 9 & 40 and long side 41 a right-angled triangle?





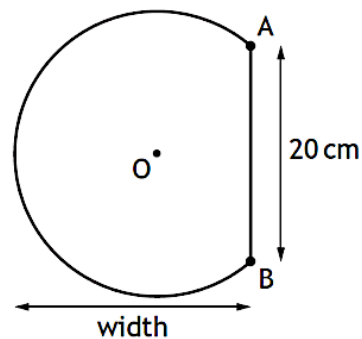
Q3) The diagram below shows the circular cross-section of a milk tank.



The radius of the circle, centre  $O$ , is 1.2 metres.

The width of the surface of the milk in the tank, represented by  $ML$  in the diagram, is 1.8 metres. Calculate the depth of the milk in the tank.

Q4) The shape below is part of a circle, centre  $O$ .



The circle has radius 13 centimetres.

$AB$  is a chord of length 20 centimetres.

Calculate the width of the shape.



## Pythagoras' Theorem - Solutions

Q1 a)  $c = 5.83$  units

b)  $a = 7$  units

c)  $a = 14.4$  units

Q2 a) Since  $20^2 + 21^2 = 29^2$  the triangle is right-angled

b) Since  $9^2 + 40^2 = 41^2$  the triangle is right-angled

Q3) The depth of milk is 2.78 m.

Q4) The width is 21.3 cm.