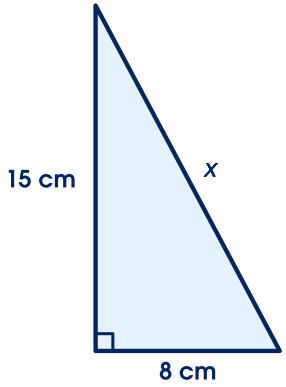
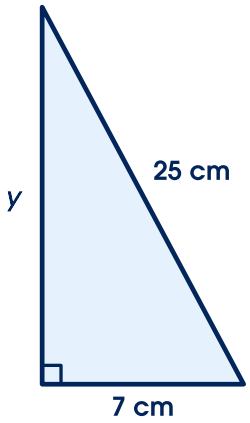
GCSE FOUNDATION · REVISION MAT 5

Pythagoras and trigonometry

1 Work out the length of the side marked x.
Give your answer to 1 decimal place if needed.

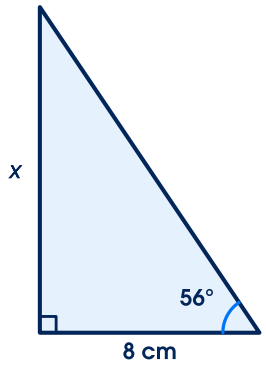


2 Work out the length of the side marked y.
Give your answer to 1 decimal place if needed.

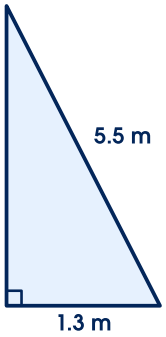


3 A triangle has sides 12 cm, 35 cm and 37 cm.
Show that it is a right-angled triangle.

4 Show that $x = 11.9$ cm,
correct to 1 decimal place.



5 A ladder 5.5 m long leans against a wall.
The foot of the ladder is 1.3 m from the wall.



(a) How high up the wall does the ladder reach?

(b) The ladder is safe if the angle with the ground is between 70° and 80°. Is it safe?

6 A is the point (2, –5) and B is the point (9, 19).
Work out the length of the line AB.

Mr&Mrs MATHS

1 $x^2 = 8^2 + 15^2 = 289$

$x =$ **17 cm**

2 $y^2 = 25^2 - 7^2 = 576$

$y =$ **24 cm**

3 $12^2 + 35^2 = 144 + 1225 = 1369$

$37^2 = 1369$

They are equal, so by Pythagoras it is **right-angled** ✓

ANSWERS · REVISION MAT 5

Pythagoras and trigonometry

4 $x = 8 \times \tan 56°$

$= 11.860... =$ **11.9 cm** ✓

5 (a) $\sqrt{(5.5^2 - 1.3^2)} =$ **5.34 m**

(b) angle $= \cos^{-1}(1.3 \div 5.5) = 76.3°$

Yes, safe

6 Across 7, up 24

AB $= \sqrt{(7^2 + 24^2)} =$ **25** units

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