

Trigonometry

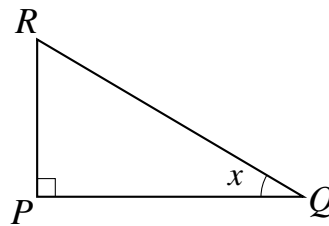
For AQA GCSE Mathematics (8300) • Foundation tier

Name _____

Total marks: **24**

Answer **all** questions in the spaces provided. Show your working: marks are given for correct method. You may use a calculator. Diagrams are not drawn accurately.

- 1** PQR is a right-angled triangle.



Not drawn accurately

- (a) Which side is the hypotenuse?

[1 mark]

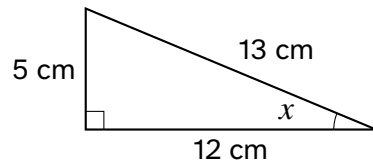
Answer _____

- (b) Which side is opposite the angle x ?

[1 mark]

Answer _____

- 2 Here is a right-angled triangle.



Not drawn accurately

Circle the correct equation for this triangle.

[1 mark]

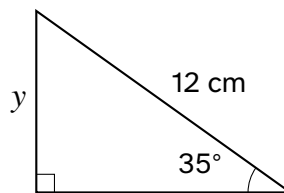
$$\sin x = \frac{5}{13}$$

$$\sin x = \frac{12}{13}$$

$$\cos x = \frac{5}{12}$$

$$\tan x = \frac{12}{5}$$

- 3 Here is a right-angled triangle.



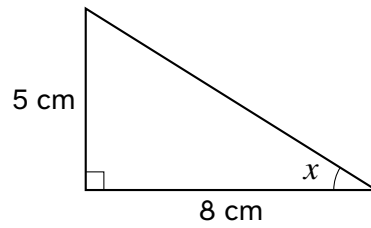
Not drawn accurately

Work out the length y .
Give your answer to 1 decimal place.

[2 marks]

Answer _____ cm

- 4 Here is a right-angled triangle.



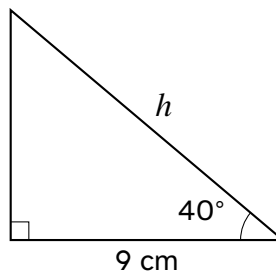
Not drawn accurately

Work out the size of angle x .
Give your answer to 1 decimal place.

[2 marks]

Answer _____ degrees

- 5 Here is a right-angled triangle.



Not drawn accurately

Work out the length of the hypotenuse, h .
Give your answer to 1 decimal place.

[3 marks]

Answer _____ cm

- 6** A ladder 6 m long leans against a vertical wall.
The ladder makes an angle of 72° with the horizontal ground.
Work out the height the ladder reaches up the wall.
Give your answer to 1 decimal place.

[3 marks]

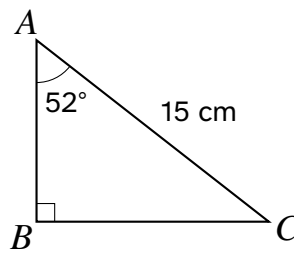
Answer _____ m

- 7** A ramp is 9 m long.
The top of the ramp is 1.2 m above the ground.
Work out the angle the ramp makes with the ground.
Give your answer to 1 decimal place.

[3 marks]

Answer _____ degrees

- 8 ABC is a right-angled triangle.
 $AC = 15$ cm and angle $BAC = 52^\circ$



Not drawn accurately

- (a) Work out the length AB .
Give your answer to 1 decimal place.

[2 marks]

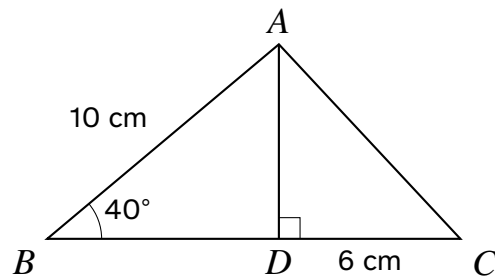
Answer _____ cm

- (b) Work out the length BC .
Give your answer to 1 decimal place.

[2 marks]

Answer _____ cm

- 9 ABC is a triangle.
 D is the point on BC such that AD is perpendicular to BC .
 $AB = 10$ cm, $DC = 6$ cm and angle $ABD = 40^\circ$



Not drawn accurately

Work out the size of angle ACD .
Give your answer to 1 decimal place.

[4 marks]

Answer _____ degrees