

Trigonometry

For Pearson Edexcel GCSE Mathematics (1MA1) • 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.

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

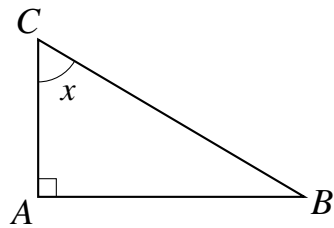


Diagram **NOT** accurately drawn

- (a) Write down the letters of the hypotenuse.

..... (1)

- (b) Write down the letters of the side adjacent to the angle marked x .

..... (1)

(Total for Question 1 is 2 marks)

- 2 ABC is a right-angled triangle.

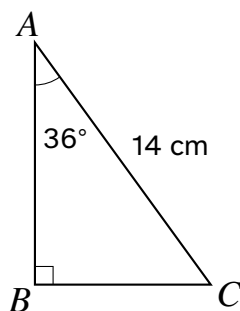


Diagram **NOT** accurately drawn

Work out the length of AB .
Give your answer correct to 3 significant figures.

..... cm
(2)

(Total for Question 2 is 2 marks)

- 3 PQR is a right-angled triangle.
 $PR = 4$ cm and $PQ = 7$ cm

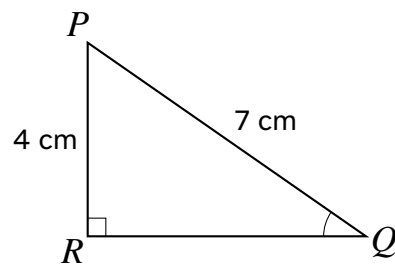


Diagram **NOT** accurately drawn

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

..... °
(2)

(Total for Question 3 is 2 marks)

- 4 Here is a right-angled triangle.

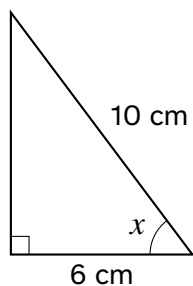


Diagram **NOT** accurately drawn

Work out the value of x .
Give your answer correct to 1 decimal place.

$x = \dots\dots\dots$
(2)

(Total for Question 4 is 2 marks)

- 5 ABC is a right-angled triangle.
 $AC = 5.2$ cm, $BC = 8.5$ cm and angle $ACB = 90^\circ$

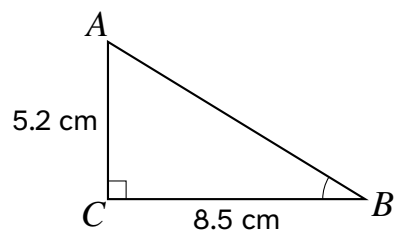


Diagram **NOT** accurately drawn

- (a) Work out the size of angle ABC .
 Give your answer correct to 1 decimal place.

.....[°]
 (2)

- (b) Work out the size of angle BAC .

.....[°]
 (1)

(Total for Question 5 is 3 marks)

- 6** The diagram shows a ramp.
The ramp makes an angle of 12° with the horizontal ground.
The top of the ramp is 0.9 m above the ground.

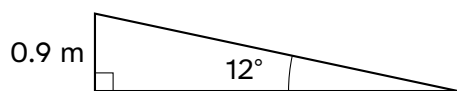


Diagram **NOT** accurately drawn

Work out the length of the ramp.
Give your answer correct to 1 decimal place.

..... m
(3)

(Total for Question 6 is 3 marks)

- 7** A tower AB is 20 m tall and stands on horizontal ground.
 C is a point on the ground. Angle $ACB = 64^\circ$
 AC is a straight wire from the top of the tower to C .

Work out the distance AC .
Give your answer correct to 3 significant figures.

..... m
(3)

(Total for Question 7 is 3 marks)

8 Here is a right-angled triangle.

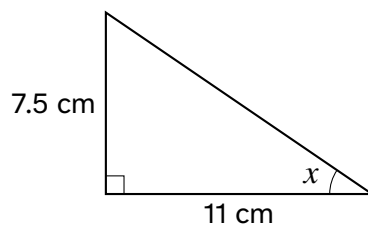


Diagram **NOT** accurately drawn

Sam says that x is greater than 35° .

Is Sam correct?

You must show how you get your answer.

(3)

(Total for Question 8 is 3 marks)

- 9 $ABCD$ is a rectangle.
The diagonal AC is 15 cm long.
Angle $CAB = 32^\circ$

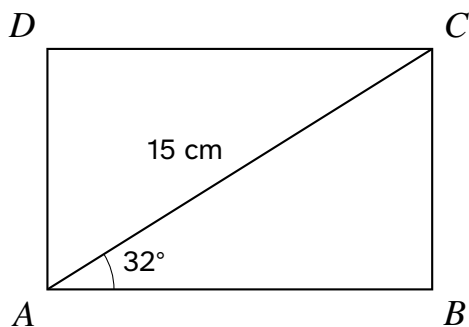


Diagram **NOT** accurately drawn

Work out the perimeter of the rectangle.
Give your answer correct to 3 significant figures.

..... cm
(4)

(Total for Question 9 is 4 marks)
