Sine Rule, Cosine Rule, Area of Any Triangle

Question Paper

Level	GCSE
Subject	Maths
Exam Board	Edexcel GCSE
Topic	Sine Rule, Cosine Rule, Area of Any Triangle
Grade Level	Grade 7
Booklet	Question Paper

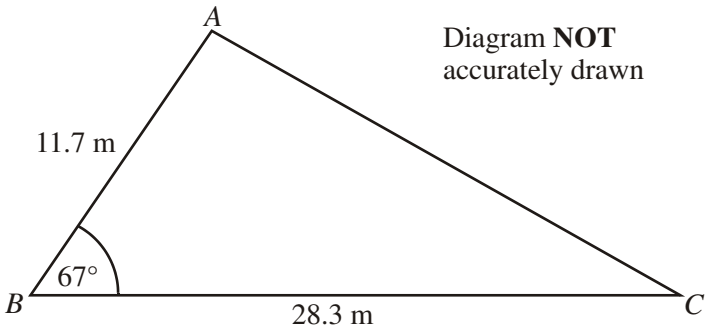
Time Allowed: **39 minutes**

Score: **/32**

Percentage: **/100**

Grade Boundaries:

1.



$AB = 11.7$ m.
$BC = 28.3$ m.
Angle $ABC = 67^0$.

(a) Calculate the area of the triangle ABC.
Give your answer correct to 3 significant figures.

…… m^2

(2)

(b) Calculate the length of AC.
Give your answer correct to 3 significant figures.

…… m

(3)

(Total 5 marks)

2.

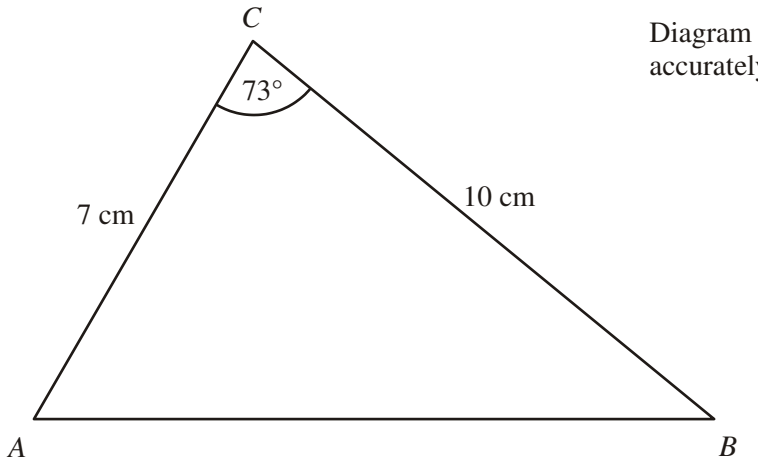


Diagram **NOT** accurately drawn

In triangle *ABC,*
AC = 7 cm,
BC = 10 cm,
angle *ACB* = 73°.

Calculate the length of *AB.*
Give your answer correct to 3 significant figures.

…… cm

(Total 4 marks)

3.

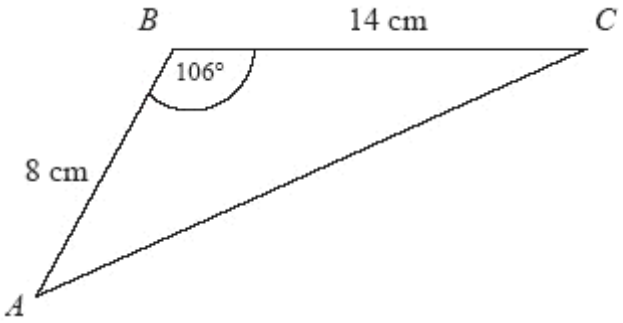


Diagram **NOT** accurately drawn

ABC is a triangle.

AB = 8 cm

BC = 14 cm

Angle *ABC* = 106 °

Calculate the area of the triangle.

Give your answer correct to 3 significant figures.

……..cm^2

(Total 3 marks)

4.

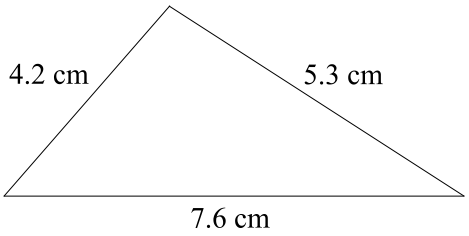


Diagram **NOT** accurately drawn

The lengths of the sides of a triangle are 4.2 cm, 5.3 cm and 7.6 cm.

(a) Calculate the size of the largest angle of the triangle.
Give your answer correct to 1 decimal place.

.....°

(3)

(b) Calculate the area of the triangle.
Give your answer correct to 3 significant figures.

..... cm^2

(3)

(Total 6 marks)

5.

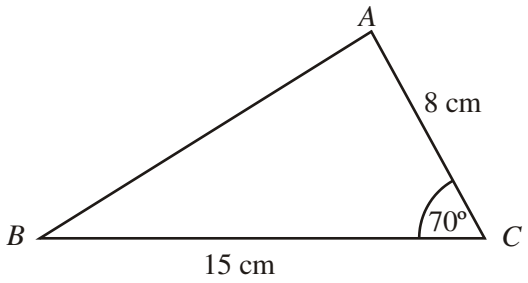


Diagram **NOT** accurately drawn

In triangle *ABC*,
AC = 8 cm,
BC =15 cm,
Angle *ACB* = 70°.

(a) Calculate the length of *AB*.
Give your answer correct to 3 significant figures.

..... cm

(3)

(b) Calculate the size of angle *BAC*.
Give your answer correct to 1 decimal place.

.....°

(2)

(Total 5 marks)

6.

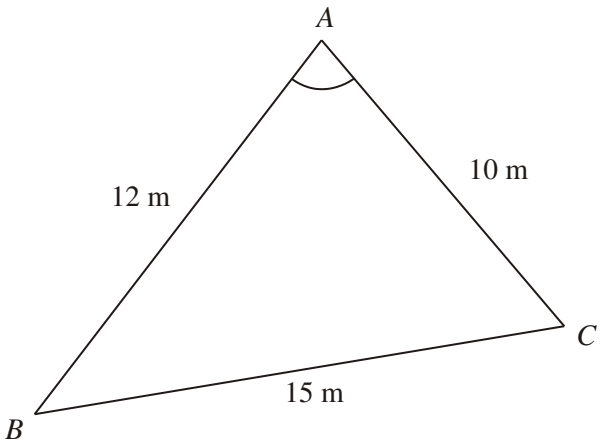


Diagram **NOT** accurately drawn

ABC is a triangle.
AB = 12 m.
AC = 10 m.
BC = 15 m.

Calculate the size of angle *BAC*.
Give your answer correct to one decimal place.

.....°

(Total 3 marks)

7.

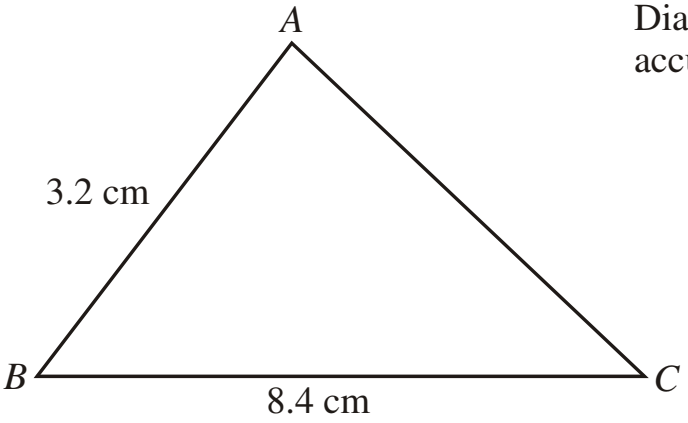


Diagram **NOT** accurately drawn

AB = 3.2 cm
BC = 8.4 cm

The area of triangle *ABC* is 10 cm^2.

Calculate the perimeter of triangle *ABC*.
Give your answer correct to three significant figures.

..... cm

(Total 6 marks)