

Loci and Construction

Mark Scheme

Level	GCSE
Subject	Maths
Exam Board	Edexcel GCSE
Topic	Loci and Construction
Grade Level	Grade 4
Booklet	Mark Scheme

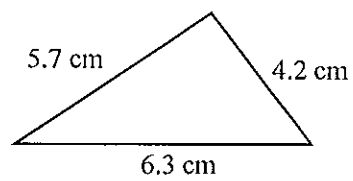
Time Allowed: 47 minutes

Score: /39

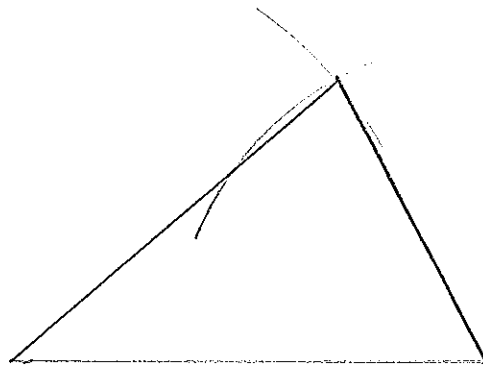
Percentage: /100

Grade Boundaries:

1. Here is a sketch of a triangle.



In the space below, use ruler and compasses to **construct** this triangle accurately. You must show all construction lines.



(3 marks)

2.

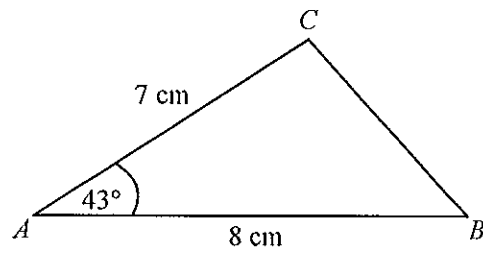


Diagram **NOT**
accurately drawn

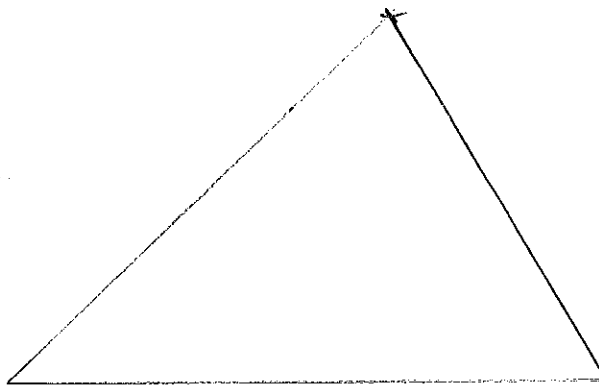
ABC is a triangle.

$AB = 8$ cm.

$AC = 1$ cm.

Angle $A = 43^\circ$.

In the space below, make an accurate drawing of triangle ABC .



(3 marks)

3. The diagram shows a sketch of triangle ABC .

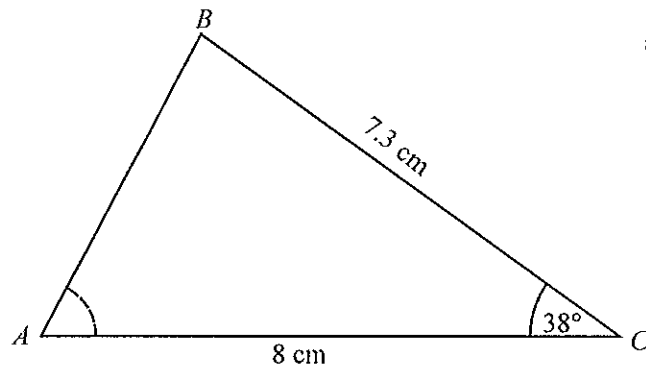
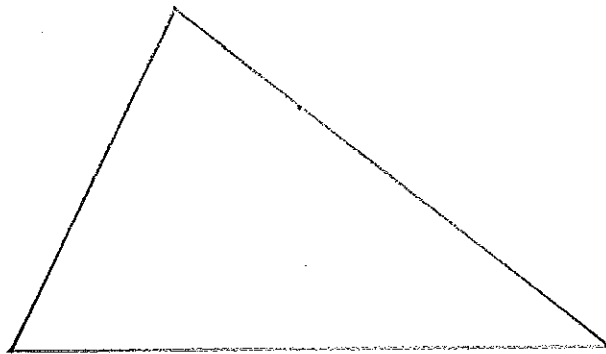


Diagram **NOT**
accurately drawn

$BC = 7.3$ cm.
 $AC = 8$ cm.
Angle $C = 38^\circ$.

- (a) Make an accurate drawing of triangle ABC .



(3)

- (b) Measure the size of angle A on your diagram.

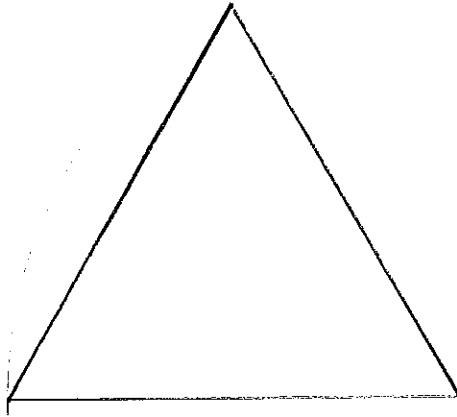
.....63.....°

(63.4)

(1)

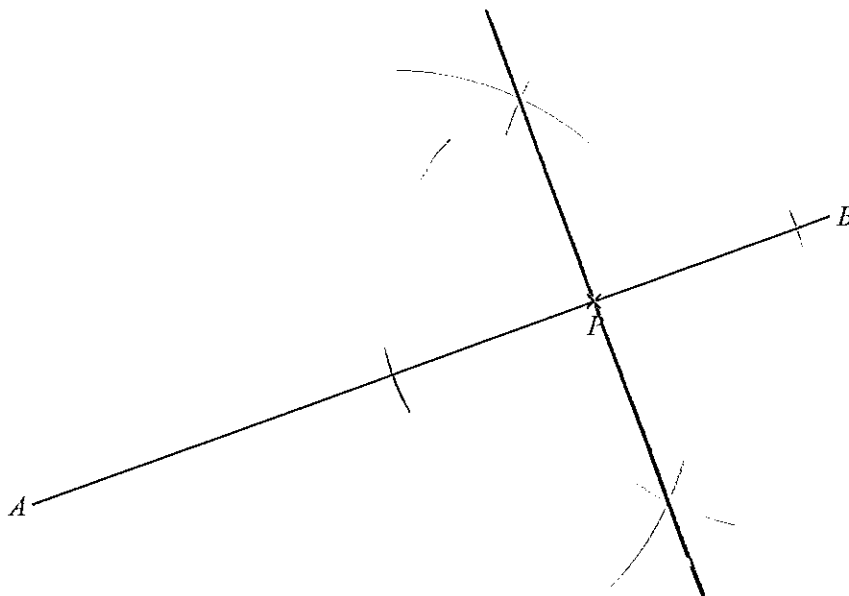
(4 marks)

4. In the space below, use ruler and compasses to **construct** an equilateral triangle with sides of length 6 centimetres.
You must show all your construction lines.



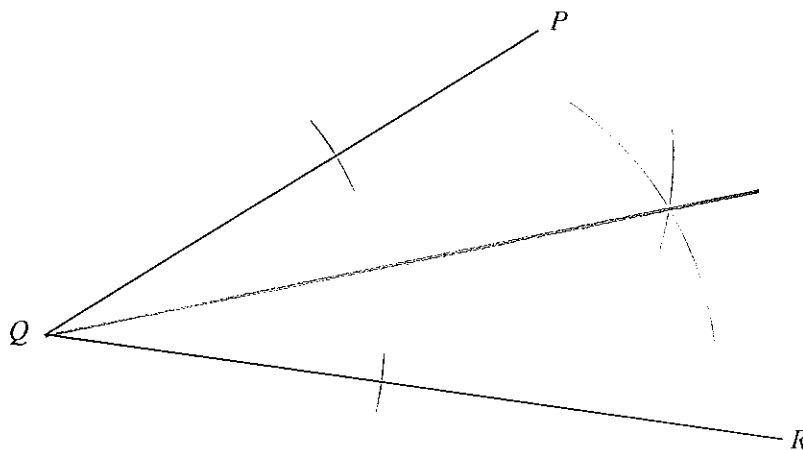
(3 marks)

5. Use the ruler and compasses to **construct** the perpendicular to the line segment AB that passes through the point P .
You must show all construction lines.



(3 marks)

6.



Use ruler and compasses to **construct** the bisector of angle PQR .
You must show all your construction lines.

(3 marks)

7.

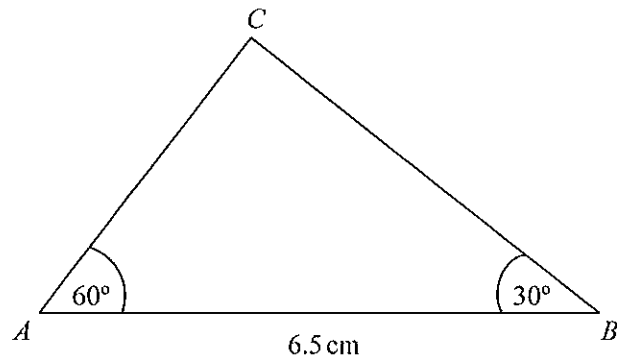
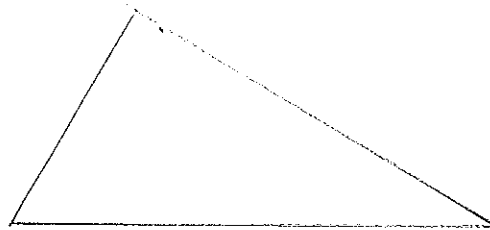


Diagram **NOT** accurately drawn

- (a) Make an accurate drawing of triangle ABC .



(3)

- (b) Measure the size of the angle at C in your triangle.

.....90.....°

(1)

(4 marks)

8.

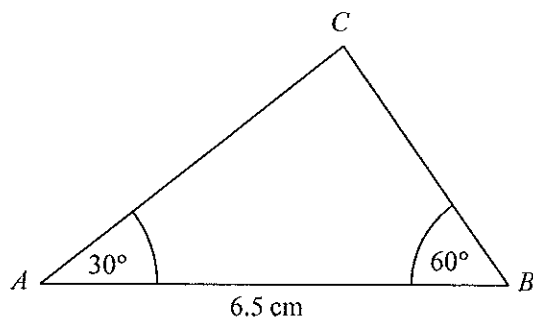
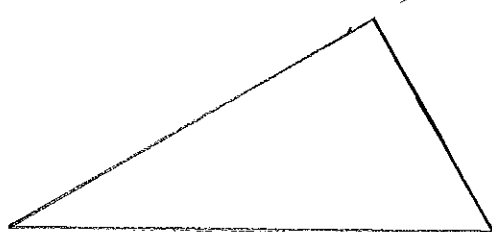


Diagram NOT
accurately drawn

- (a) Make an accurate drawing of this triangle.



(2)

- (b) Measure the length of the line AC on your drawing.
You must state the units.

5.6 cm

(2)

The size of the angle in the triangle at C is 90° .

- (c) Write down the mathematical name for this type of angle.

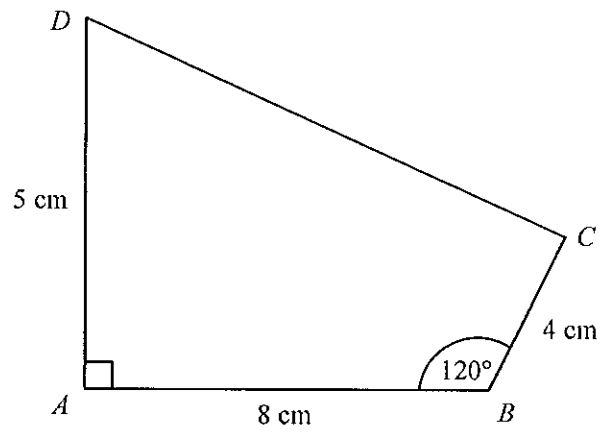
right angled

(1)

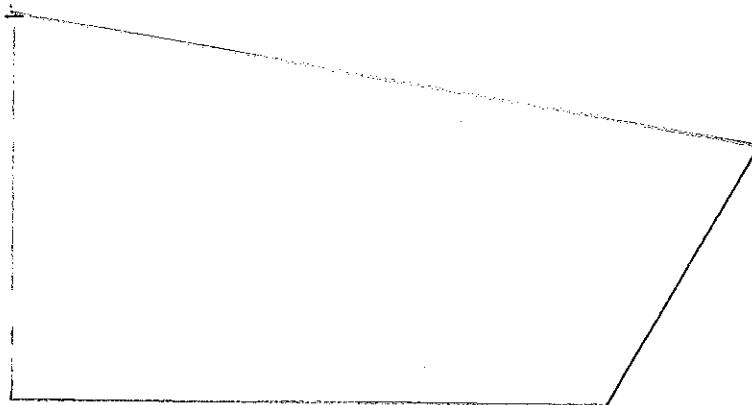
(5 marks)

9.

Diagram **NOT**
accurately drawn



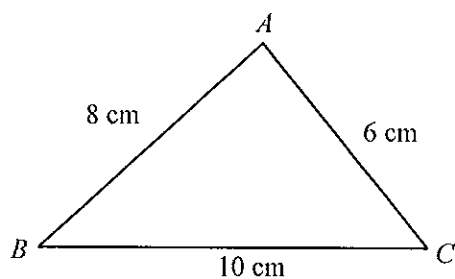
Make an accurate drawing of the quadrilateral $ABCD$ in the space below.



(4 marks)

10.

Diagram NOT accurately drawn



ABC is a triangle.

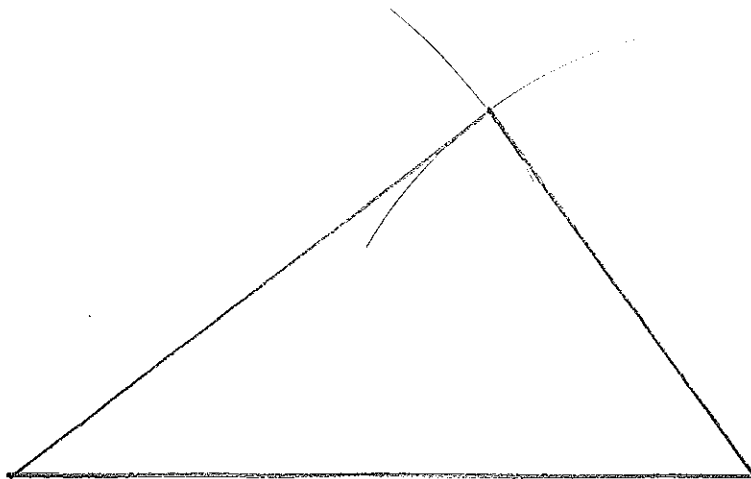
$AB = 8\text{ cm}$.

$AC = 6\text{ cm}$.

$BC = 10\text{ cm}$.

Use ruler and compasses to construct an accurate drawing of triangle ABC .

You must show all your construction lines.



(3 marks)

11. Here is a sketch of a rhombus.

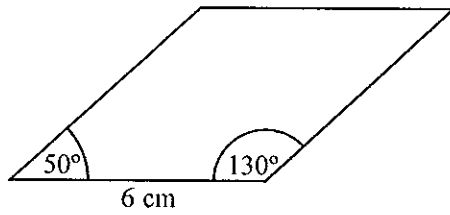
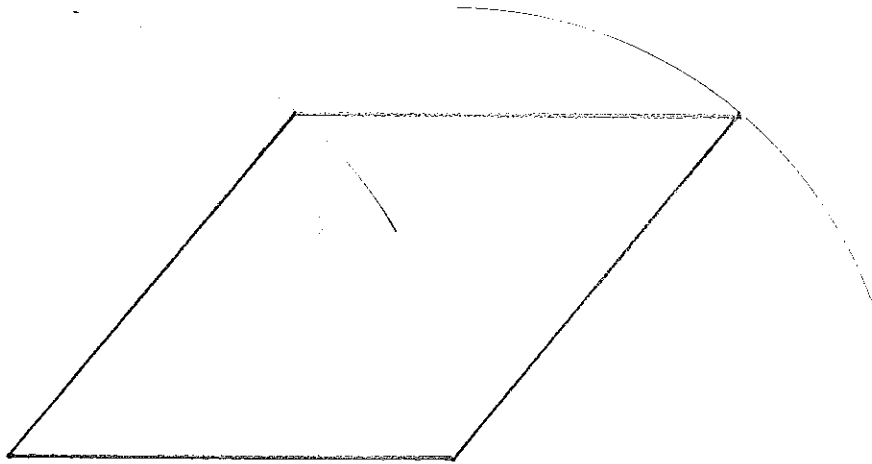


Diagram **NOT** accurately drawn

The rhombus has a side of length 6 cm.
One angle of the rhombus is 50° .
Another angle of the rhombus is 130° .

Use a ruler and a protractor to make an accurate drawing of the rhombus.



(4 marks)