

8300

GCSE MATHEMATICS

Foundation and Higher tier – Questions by Topic

Geometry

Constructing bisectors, perpendiculars, and triangles

v1.0

Name _____

Materials

For this paper you must have:

- Mathematical instruments

Information

- The marks for questions are shown in brackets

Advice

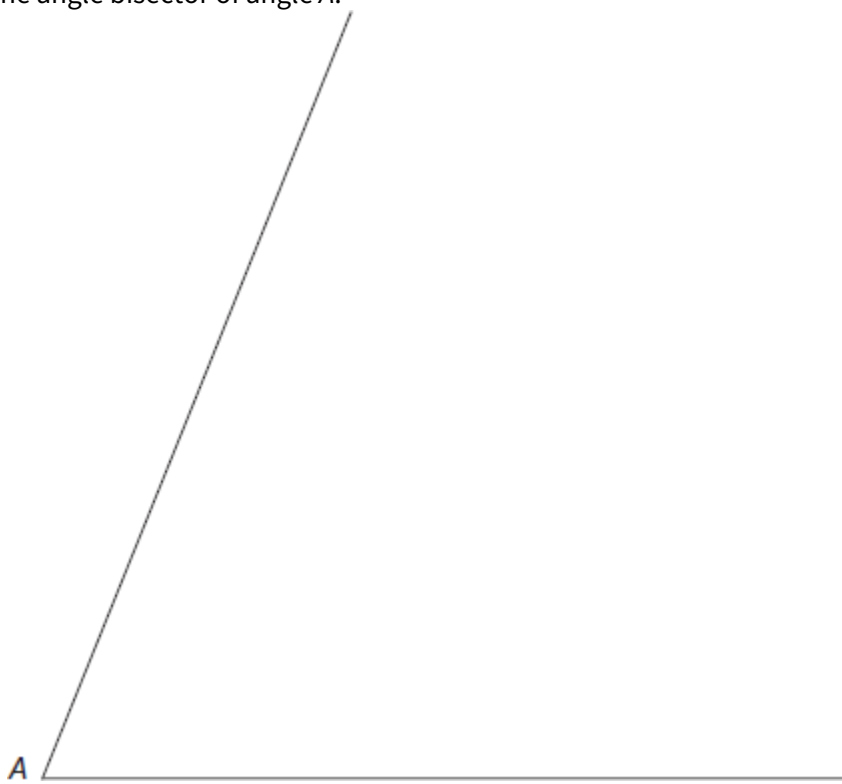
- In all calculations, show clearly how you work out your answer

For questions 1 to 4 you must **NOT** use a calculator.



Q1.

You will need a ruler and compasses to answer this question.
Construct the angle bisector of angle A .



(Total 2 marks)

Q2.

Use a ruler and a pair of compasses in this question.
Construct the perpendicular bisector of AB .



(Total 2 marks)

Q3.

Using ruler and compasses,
construct a triangle ABC so that
 BC is perpendicular to AB
 $AC = 9\text{ cm}$
 AB has been drawn for you.



(Total 3 marks)

Q4.

You will need a ruler and a pair of compasses to answer this question.
Construct the perpendicular **from** point P to the line L .
You **must** show your construction arcs.

P ×



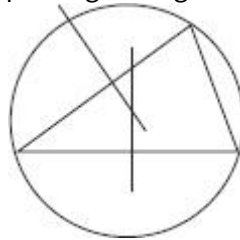
(Total 3 marks)

For the rest of the questions, you may use a calculator

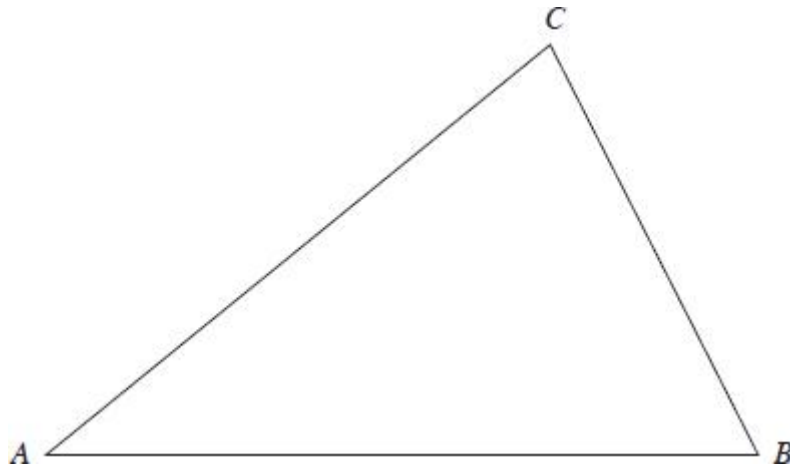


Q5.

Use these steps to construct a circle passing through the vertices of the triangle ABC .



- Construct the perpendicular bisector of AB .
 - Construct the perpendicular bisector of AC .
 - Use the point of intersection of the bisectors as the centre of the circle.
 - Draw the circle through A , B and C .
- Show your construction arcs clearly.



(Total 4 marks)