

Constructions

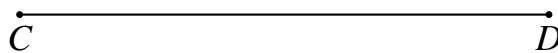
For Pearson Edexcel GCSE Mathematics (1MA1) • Foundation tier

Name _____

Total marks: **21**

Answer **all** questions in the spaces provided. Show your working: marks are given for correct method. You will need a ruler and a pair of compasses. Diagrams are drawn accurately: print at 100%.

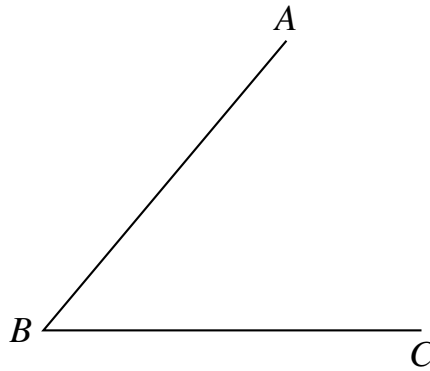
- 1** Use ruler and compasses to construct the perpendicular bisector of the line CD .
You must show all your construction lines.



(2)

(Total for Question 1 is 2 marks)

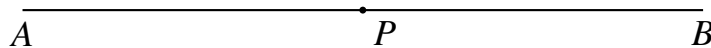
- 2 Use ruler and compasses to construct the bisector of angle ABC .
You must show all your construction lines.



(2)

(Total for Question 2 is 2 marks)

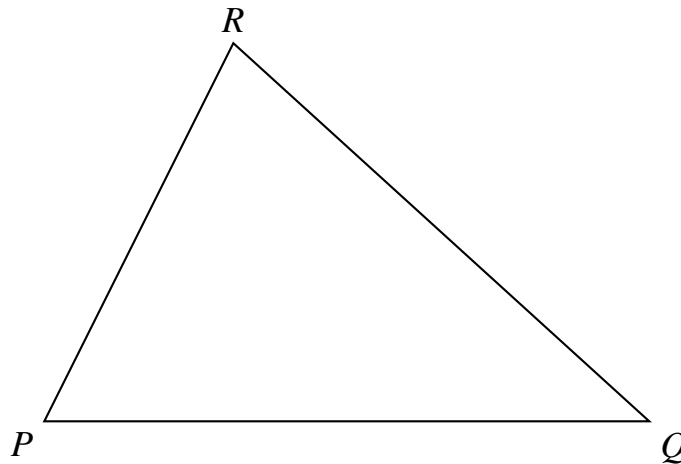
- 3 Use ruler and compasses to construct a line perpendicular to AB at the point P .
You must show all your construction lines.



(2)

(Total for Question 3 is 2 marks)

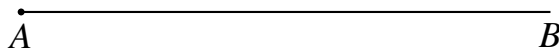
- 4 Shade the region of points inside triangle PQR that are closer to Q than to R .
Use ruler and compasses. You must show all your construction lines.



(2)

(Total for Question 4 is 2 marks)

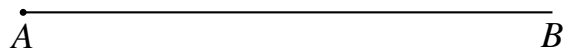
- 5 Use ruler and compasses to construct an angle of 60° at A .
Use AB as one arm of the angle.
You must show all your construction lines.



(2)

(Total for Question 5 is 2 marks)

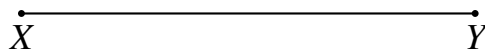
- 6** Use ruler and compasses to construct an angle of 30° at A .
Use AB as one arm of the angle.
You must show all your construction lines.



(2)

(Total for Question 6 is 2 marks)

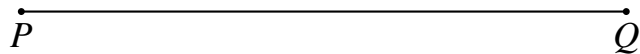
- 7** Use ruler and compasses to construct an equilateral triangle with sides of length 6 cm.
The side XY has been drawn for you.
You must show all your construction lines.



(2)

(Total for Question 7 is 2 marks)

- 8 Use ruler and compasses to construct triangle PQR with $PR = 6$ cm and $QR = 5$ cm. PQ has been drawn for you.



(2)

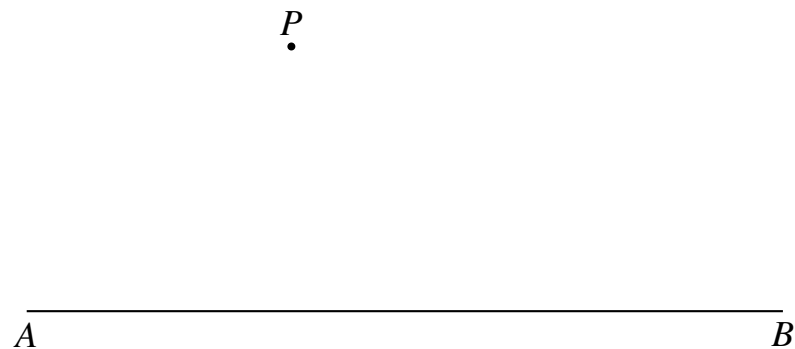
(Total for Question 8 is 2 marks)

- 9 Use ruler and compasses to construct triangle ABC with
 $AB = 7$ cm, $AC = 5$ cm and $BC = 6$ cm.
You must show all your construction lines.

(2)

(Total for Question 9 is 2 marks)

- 10** A new straight road is to be built from town P to the road AB .
 The new road must be as short as possible.
 Use ruler and compasses to construct the new road.
 You must show all your construction lines.



The scale of the map is 1 cm represents 2 km.
 Work out the real length of the new road.

..... km
 (3)

(Total for Question 10 is 3 marks)