

Centre No.						Paper Reference						Surname <i>Correction</i>	Initial(s)	
Candidate No.						1	3	8	0	/	4	H	Signature <i>M Sewart</i>	

Paper Reference(s)

1380/4H

Edexcel GCSE

Mathematics (Linear) – 1380

Papers 3 and 4

Locus and Constructions

Past Paper Questions

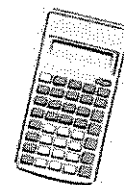
Arranged by Topic

Examiner's use only

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Team Leader's use only

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Materials required for examination

Ruler graduated in centimetres and millimetres, protractor, compasses, pen, HB pencil, eraser, calculator. Tracing paper may be used.

Items included with question papers

Nil

Instructions to Candidates

In the boxes above, write your centre number, candidate number, your surname, initials and signature.

Check that you have the correct question paper.

Answer ALL the questions. Write your answers in the spaces provided in this question paper.

You must NOT write on the formulae page.

Anything you write on the formulae page will gain NO credit.

If you need more space to complete your answer to any question, use additional answer sheets.

Information for Candidates

The marks for individual questions and the parts of questions are shown in round brackets: e.g. (2).

There are 26 questions in this question paper. The total mark for this paper is 100.

There are 24 pages in this question paper. Any blank pages are indicated.

Calculators may be used.

If your calculator does not have a π button, take the value of π to be 3.142 unless the question instructs otherwise.

Advice to Candidates

Show all stages in any calculations.

Work steadily through the paper. Do not spend too long on one question.

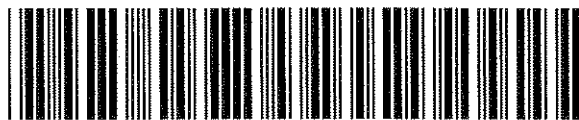
If you cannot answer a question, leave it and attempt the next one.

Return at the end to those you have left out.

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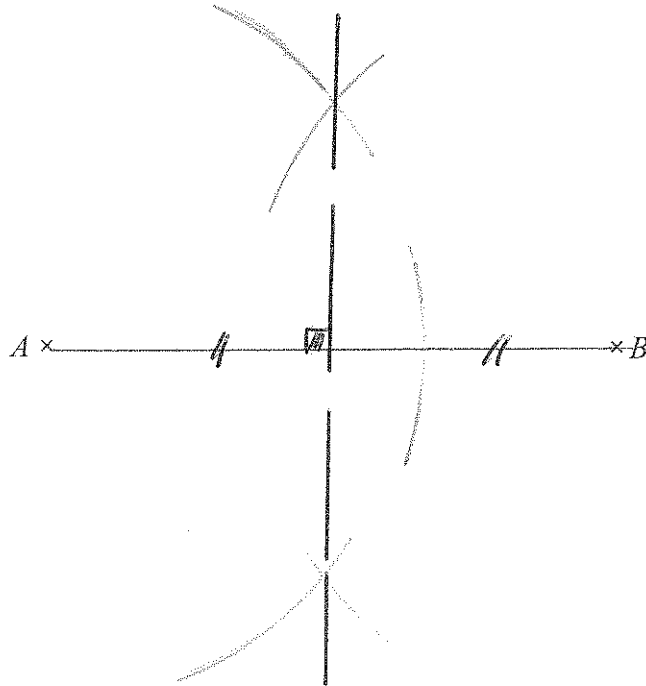
Compiled by Peter Bland



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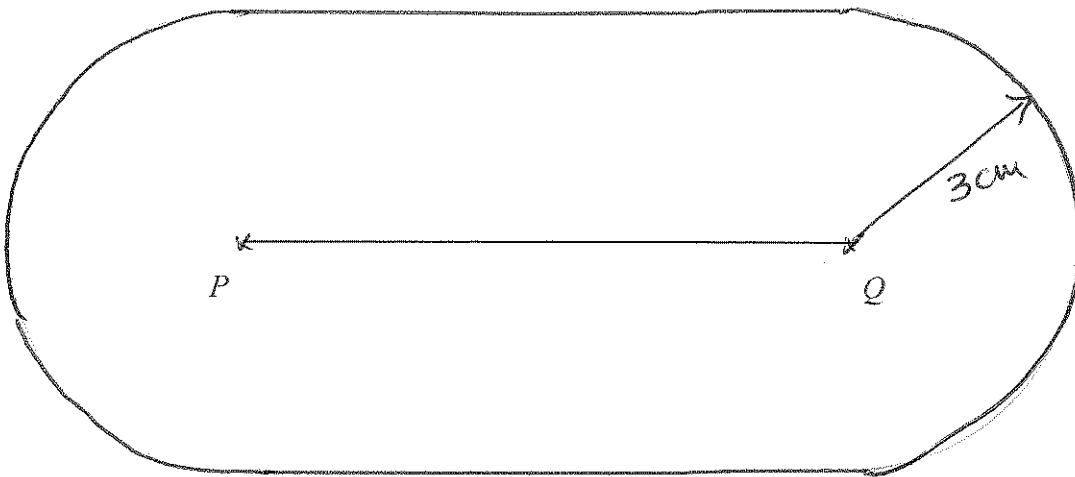
1. (a) Draw the locus of all points which are equidistant from the points A and B .



Locus = Perpendicular bisector

(2)

(b) Draw the locus of all points that are exactly 3 cm from the line PQ .



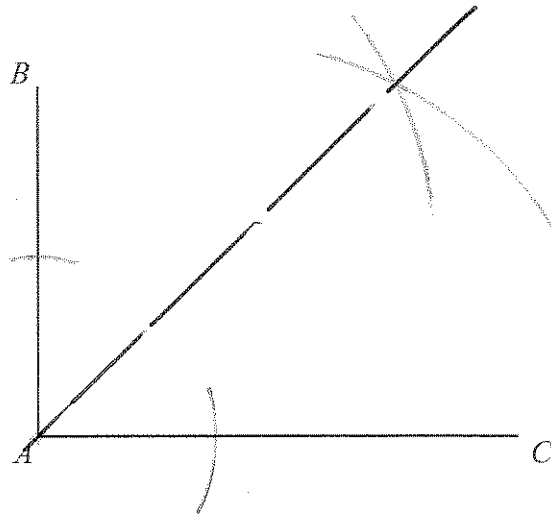
Locus = 2 parallel lines
+
2 semi-circles

(2)

Q1

(Total 4 marks)

2. Draw the locus of all points which are equidistant from the lines AB and AC .



Locus = Angle bisector.

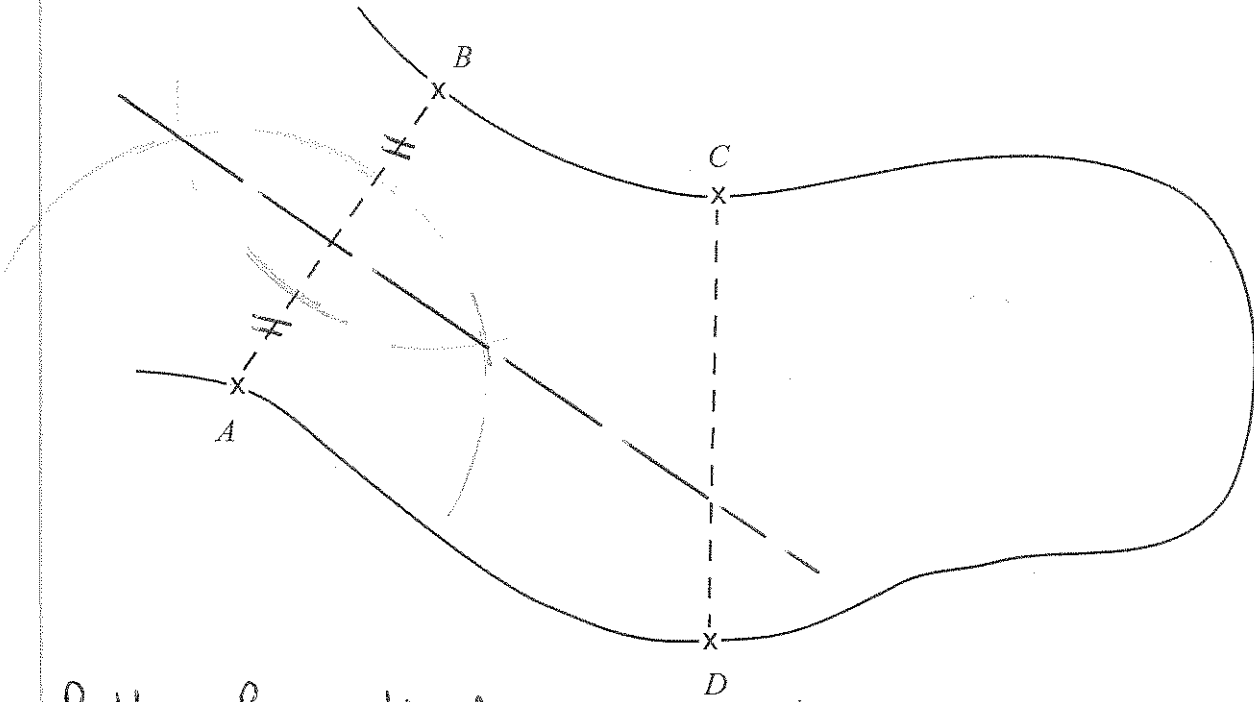
Q2

(Total 2 marks)

3. The map shows part of a lake.

In a competition for radio controlled boats, a competitor has to steer a boat so that its path between AB and CD is a straight line
this path is always the same distance from A as from B

On the map, draw the path the boat should take.

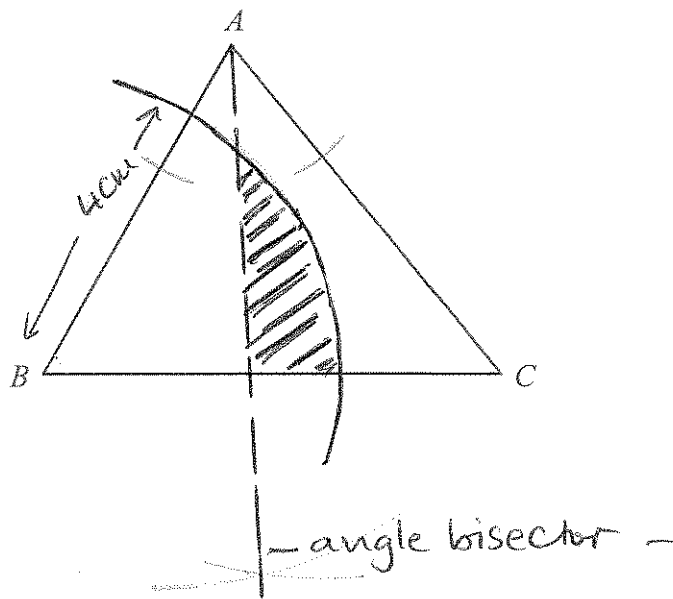


Path: Perpendicular bisector to AB

(Total 2 marks)

Q3

4.



ABC is a triangle.

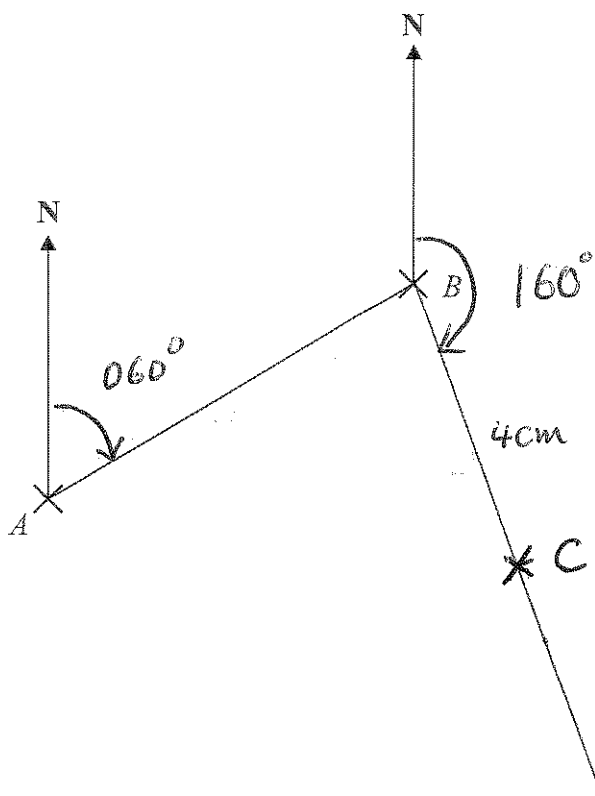
Shade the region inside the triangle which is **both**

and less than 4 centimetres from the point B
closer to the line AC than the line AB .

Q4

(Total 4 marks)

5. The diagram shows the positions of two telephone masts, *A* and *B*, on a map.



(a) Measure the bearing of *B* from *A*.

060

(1)

Another mast *C* is on a bearing of 160° from *B*.
On the map, *C* is 4 cm from *B*.

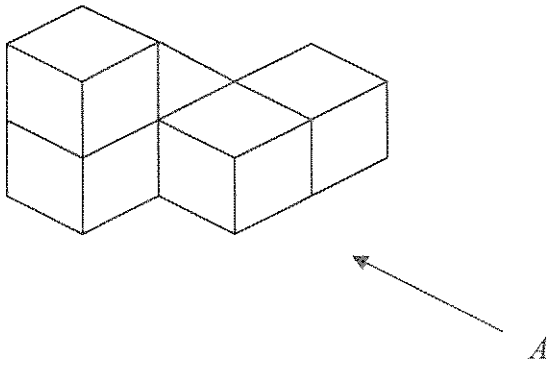
(b) Mark the position of *C* with a cross (×) and label it *C*.

(2)

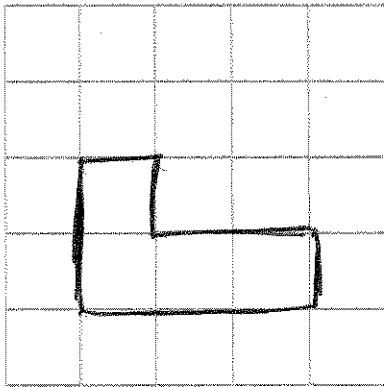
(Total 3 marks)

Q5

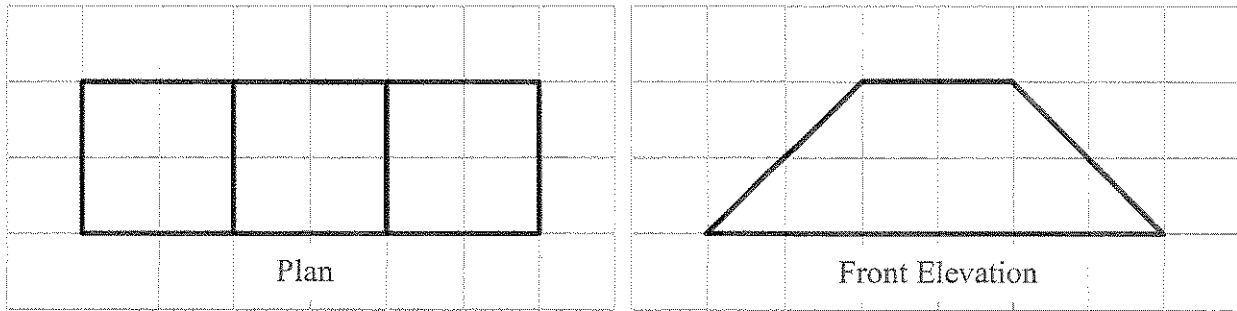
6. The diagram represents a solid made from 5 identical cubes.



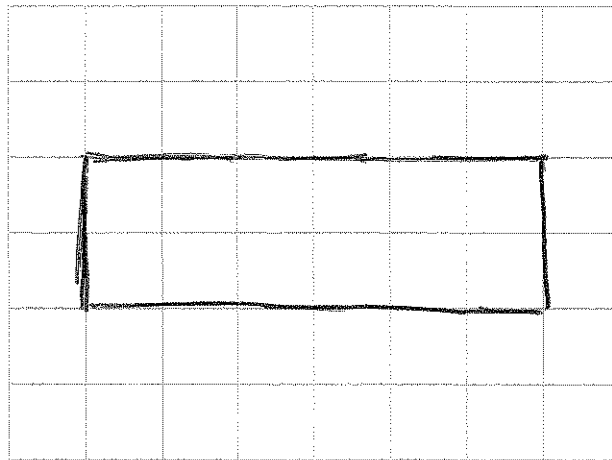
On the grid below, draw the view of the solid from direction *A*.



7. Here are the plan and front elevation of a solid shape.

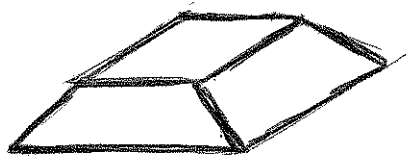


(a) On the grid below, draw the side elevation of the solid shape.



(2)

(b) In the space below, draw a sketch of the solid shape.



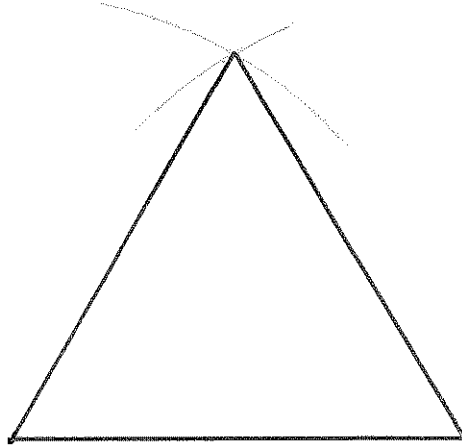
(2)

Q7

(Total 4 marks)

8. 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.

One side of the triangle has already been drawn for you.

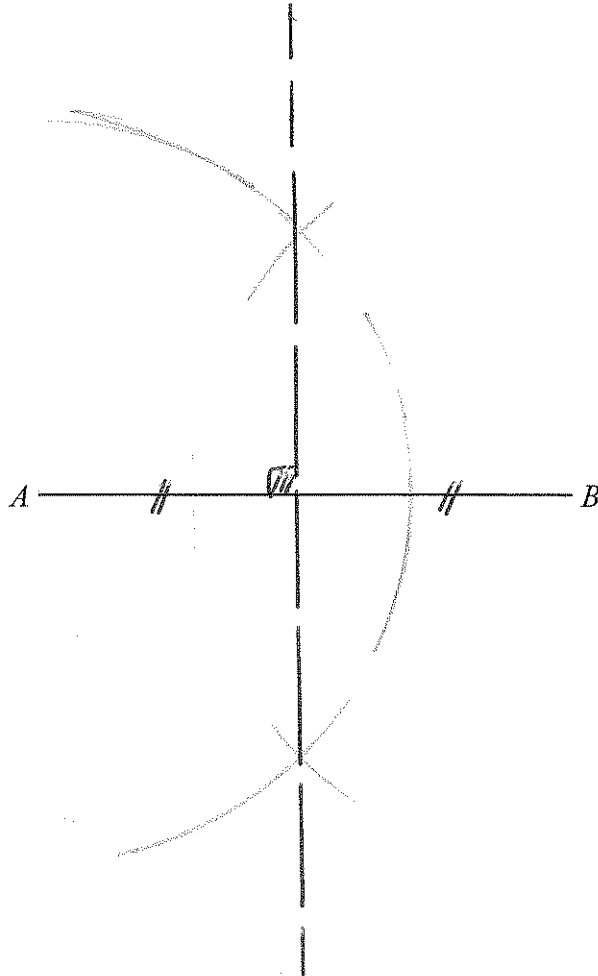


Q8

(Total 2 marks)

9. Use ruler and compasses to **construct** the perpendicular bisector of the line AB .

You must show all your construction lines.

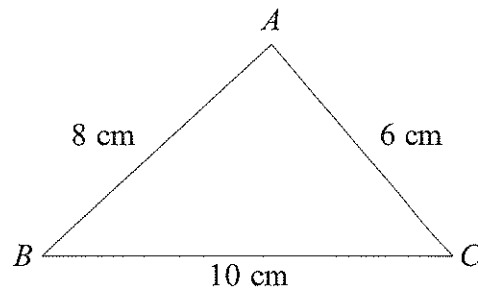


Q9

(Total 2 marks)

10.

Diagram NOT accurately drawn



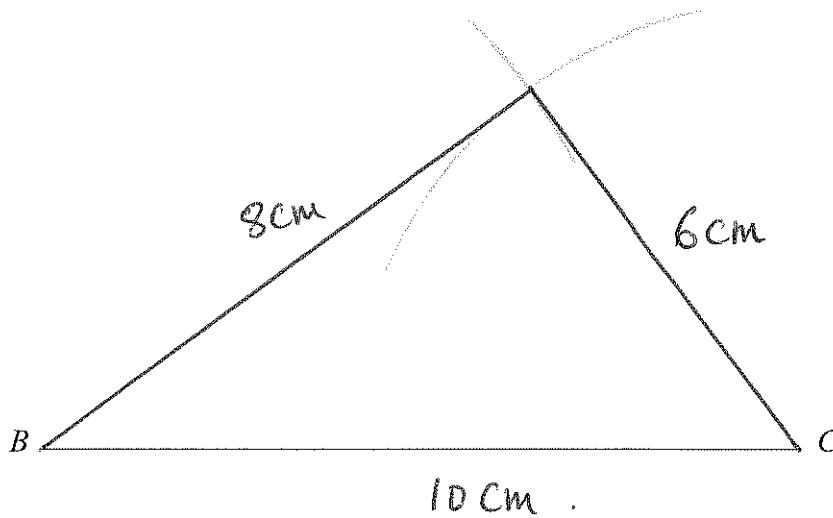
ABC is a triangle.

$AB = 8$ cm.

$AC = 6$ cm.

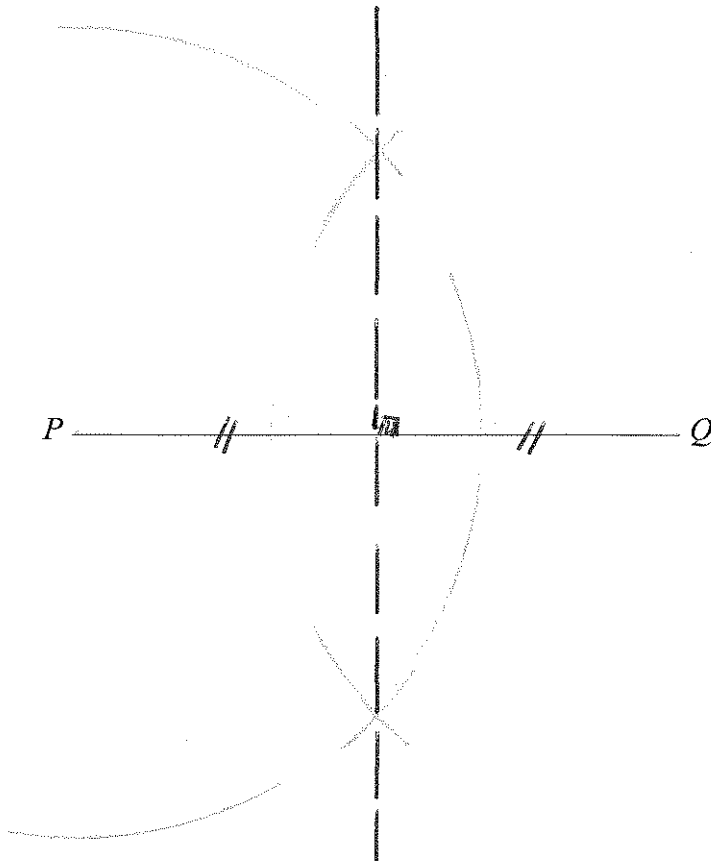
$BC = 10$ cm.

- (a) Use ruler and compasses to construct an accurate drawing of triangle ABC .
 The line BC has been drawn for you.
 You must show all your construction lines.



(2)

(b) Use ruler and compasses to construct the perpendicular bisector of the line PQ . You must show all your construction lines.

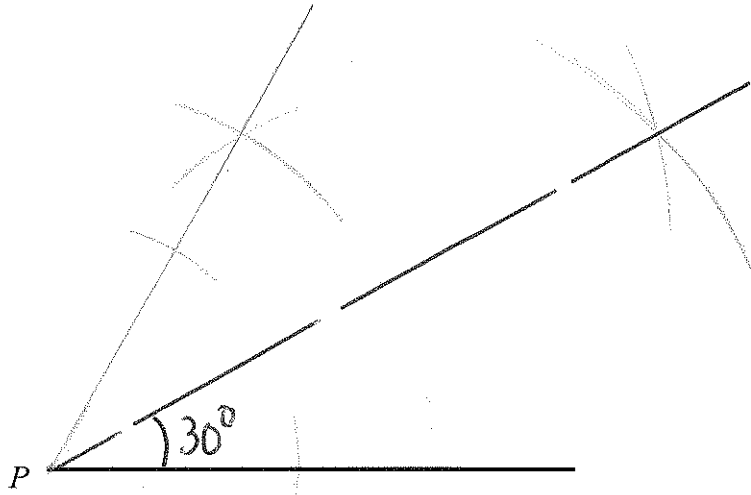


(2)

Q10

(Total 4 marks)

11. Use ruler and compasses to **construct** an angle of 30° at P .
You **must** show all your construction lines.



Q11

(Total 3 marks)

