Centre No.						Paper Reference							Surname	Initial(s)
Candidate No.						1	3	8	0	/	4	H	Signature	

Paper Reference(s)

1380/4H

Examiner's use only

Team Leader's use only

Edexcel GCSE

Mathematics (Linear) – 1380

Papers 3 and 4

Locus and Constructions

Past Paper Questions

Arranged by Topic

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.

N 3 4 7 3 1 A 0 1 2 4

Turn over

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Leave blank

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

$A \times$ $\times B$

(2)

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

P Q

(2) **Q1**

(Total 4 marks)

Leave blank

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

Q2

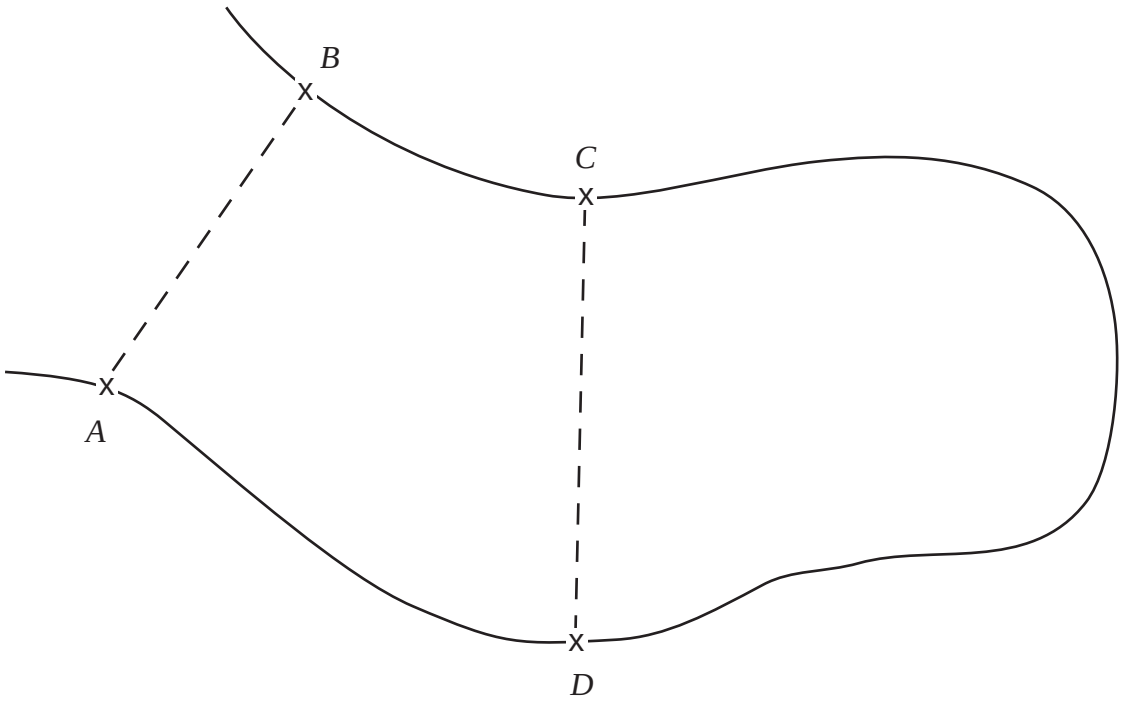
(Total 2 marks)

Leave blank

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.

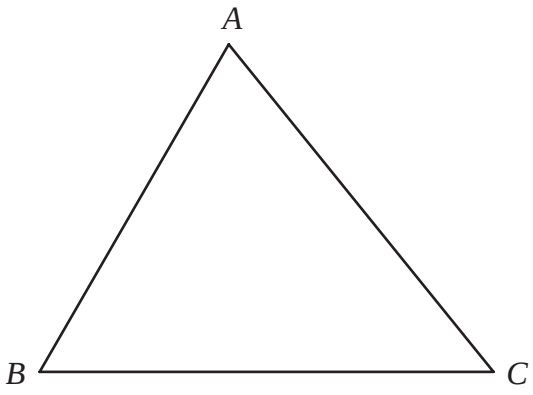


Q3

(Total 2 marks)

Leave blank

4.



ABC is a triangle.

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

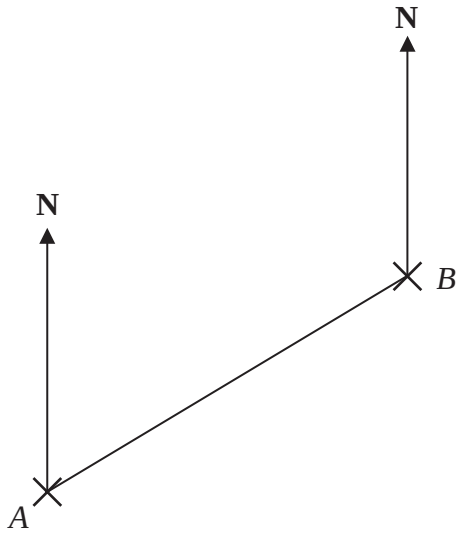
less than 4 centimetres from the point *B*
and closer to the line *AC* than the line *AB*.

Q4

(Total 4 marks)

Leave blank

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



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

..... °

(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*.

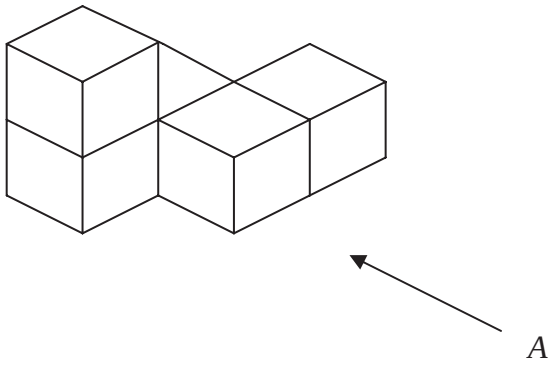
(2)

Q5

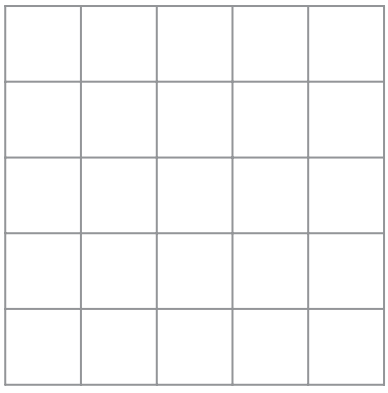
(Total 3 marks)

Leave blank

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



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

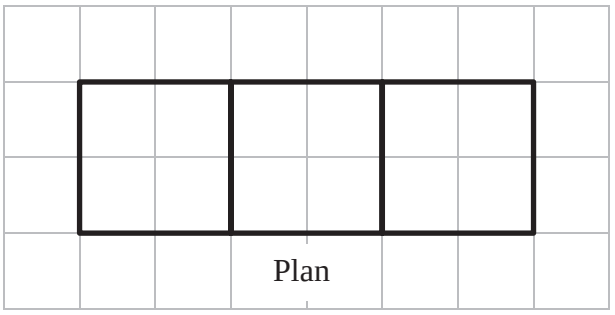


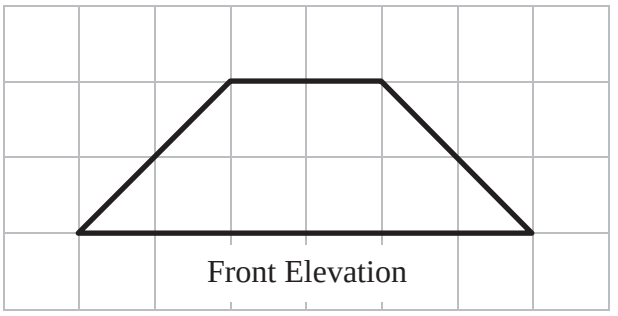
Q6

(Total 2 marks)

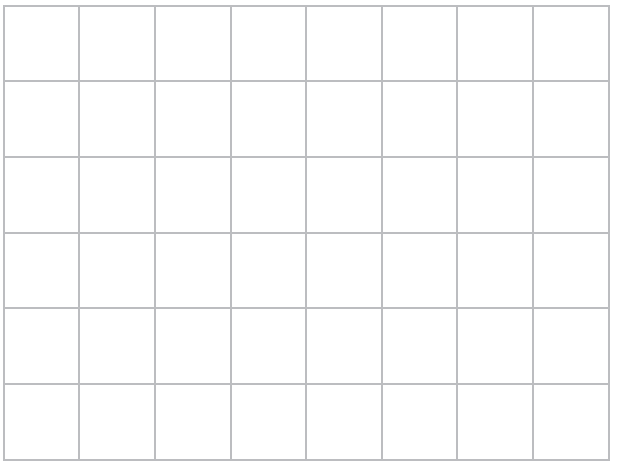
Leave blank

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)

Leave blank

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.

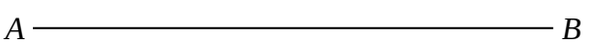
Q8

(Total 2 marks)

Leave blank

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)

Leave blank

10.

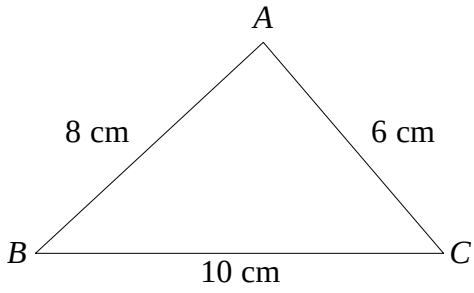


Diagram **NOT** accurately drawn

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.

B _____ *C*

(2)

Leave blank

(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)

Leave blank

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

P ——————————

Q11

(Total 3 marks)