Topic Test 1 (20 minutes)
Constructions and loci - Foundation

You will need compasses, protractor and a ruler to answer these questions.

1   This triangle is drawn accurately.
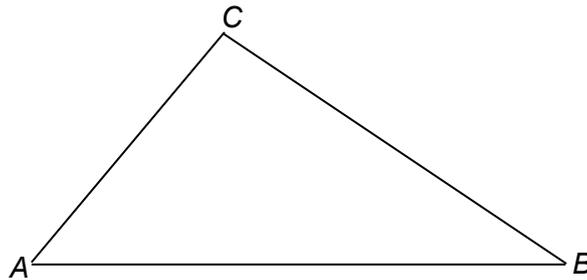
1 (a)   Measure the length of *AB*.

[1 mark]

Answer _____ cm

1 (b)   Measure the size of angle *A*.

[1 mark]

Answer _____ degrees

1(c)   Measure the length *BC*.
           Give your answer in millimetres.

[1 mark]

Answer _____ mm

2 (a)   The line *AB* below is 9 cm long.

Construct an equilateral triangle *ABC*.

[1 mark]

_____

A   B
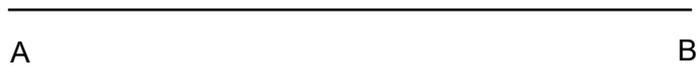
2 (b)   Measure and write down the shortest distance from the point *C* to the line *AB*.
Give your answer in centimetres.

[1 mark]

Answer _____ cm

3 This is a sketch of a target.
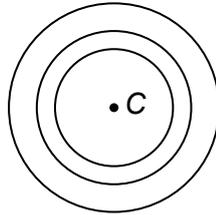
Not drawn
accurately

The circles of this target have the same centre, *C*.
The radii of the circles are 30 cm, 40 cm and 60 cm

Construct an accurate scale drawing of the target, using a scale of 1cm represents 10 cm
Centre *C* is given for you.

[2 marks]

C •

4 (a) On the grid draw a line that is perpendiculat to *LM*.
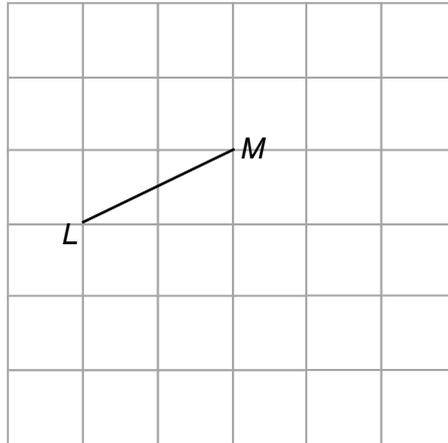
[1 mark]

4 (b) On the grid below draw a line that is

parallel to *LM*

and

twice the length of *LM*.

[1 mark]
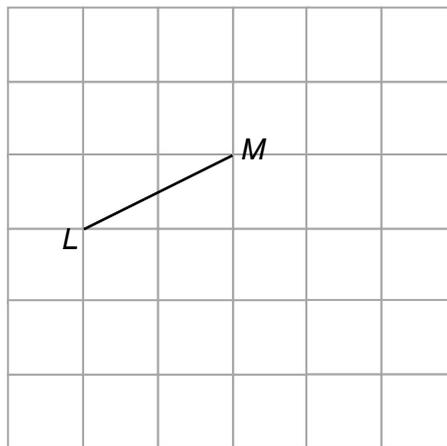
5 Construct the perpendicular bisector of *PQ*.

[2 marks]

P ——————————————————————————— Q

6 Construct the angle bisector of *ABC*.

[2 marks]

A

B *C*
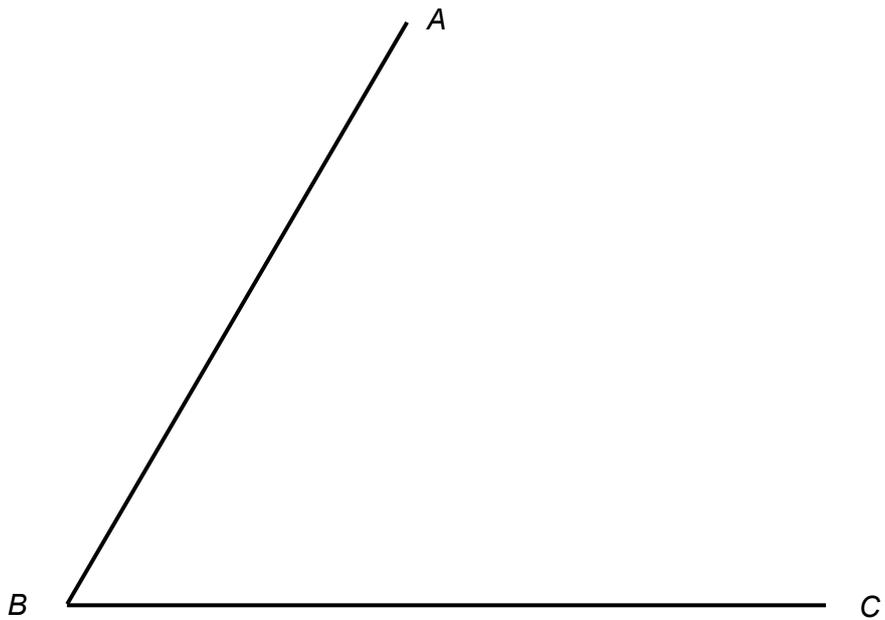
7 A simple computer drawing program uses three commands

FORWARD
TURN LEFT
TURN RIGHT

7 (a) Maisy writes the following to draw a square.

FORWARD 1 cm
TURN RIGHT
FORWARD 1 cm
TURN LEFT
FORWARD 1 cm
TURN RIGHT
FORWARD 1 cm

Which of the following is the path that the computer draws.
Circle the correct letter.

[1 mark]

| A | B | C | D |
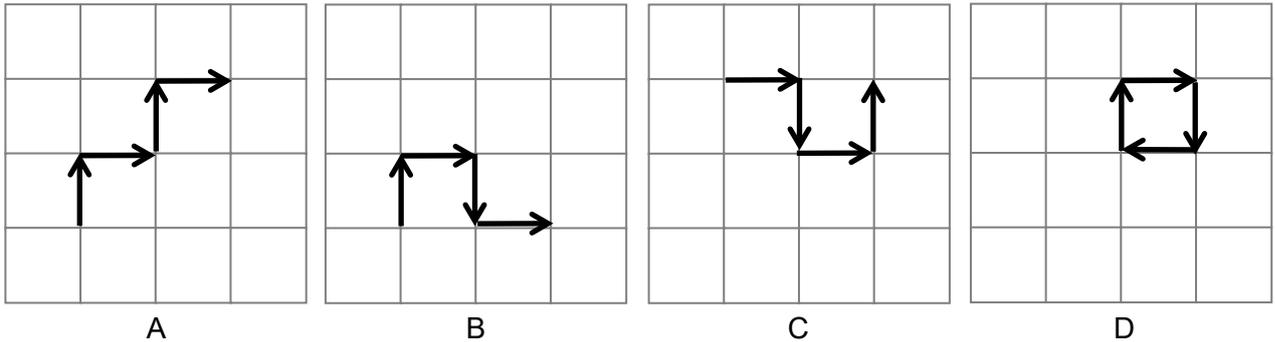
7 (b) Complete this program to draw a rectangle 4 cm by 6 cm

[2 marks]

FORWARD   6 cm

TURN   RIGHT

FORWARD   ……….. cm

TURN   …………

FORWARD   ……….. cm

TURN   …………

FORWARD   ………… cm

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8 Two mobile phone masts are on an island at P and Q.
Both masts have a range of 60 kilometres.

Shade on the map, the areas of the island where mobile phones do not get a signal.

[2 marks]

Scale: 1 cm represents 10 km
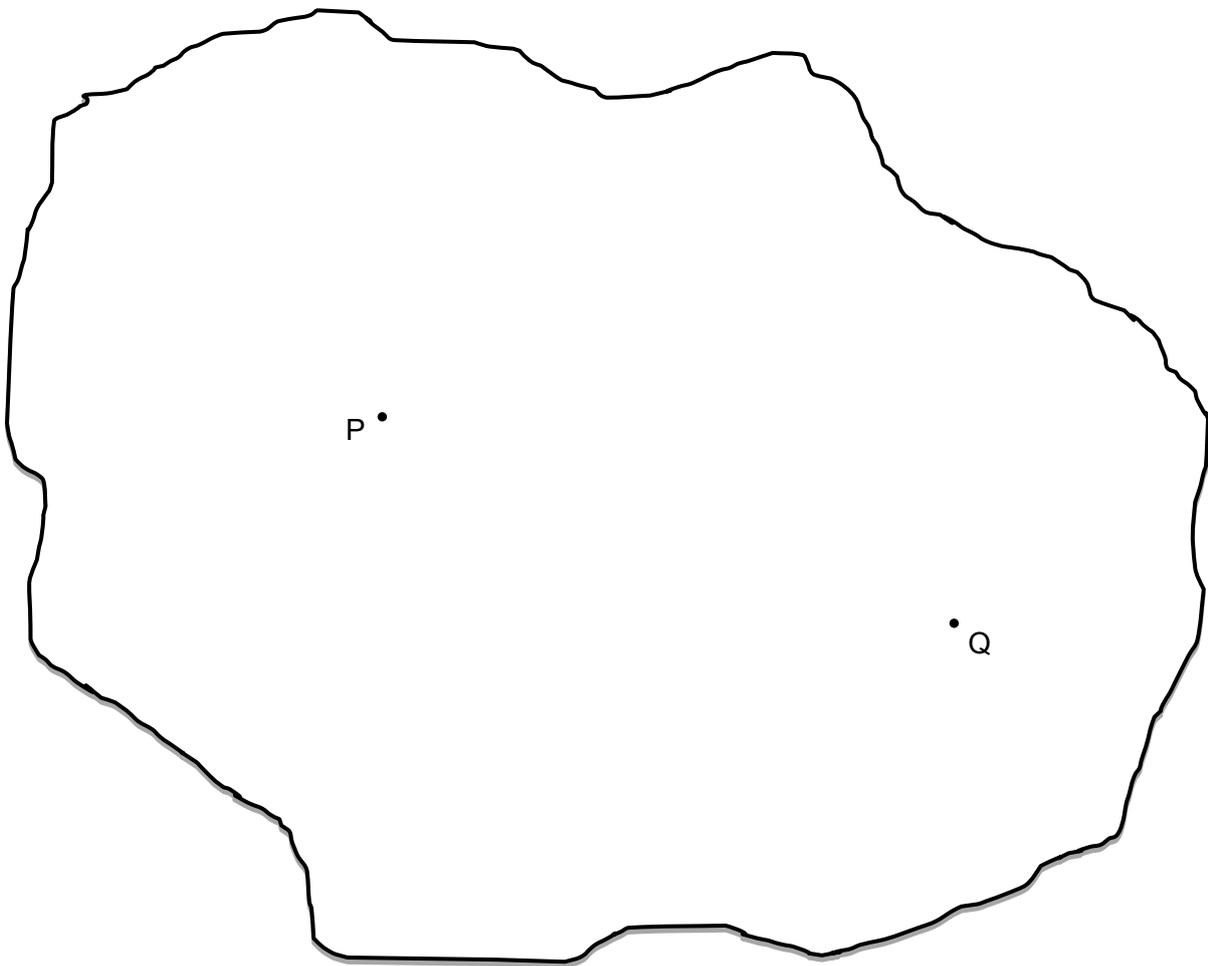
9 The sketch shows a shape made from 2 semicircles A and B.
A has radius 4 cm
B has radius 3 cm
XY is a straight line.

$XY = 11\frac{1}{2}$ cm
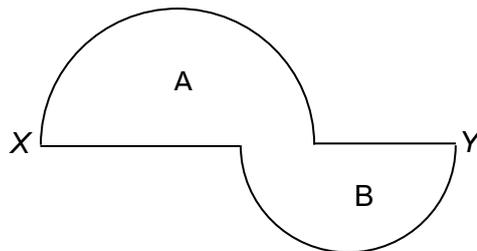
Not drawn
accurately

Construct an accurate drawing of the shape.

[2 marks]