

SCALE DRAWINGS

Pearson Edexcel - Tuesday 12 June 2018 - Paper 3 (Calculator) Foundation Tier

1.

12 The diagram shows a scale drawing of a tennis court.



The scale of the drawing is 1 : 200

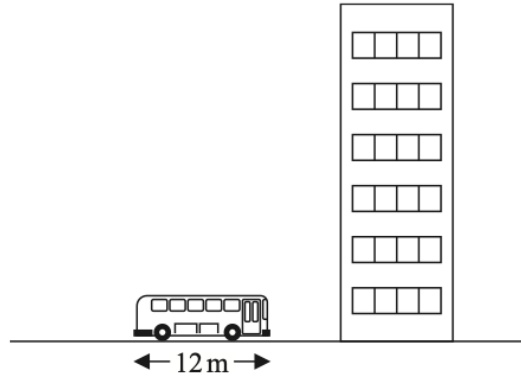
Work out the perimeter of the real tennis court.
Give your answer in metres.

..... metres

(Total for Question 12 is 5 marks)

2.

8



The picture shows a bus next to a building.
The bus has a length of 12 m.

The bus and the building are drawn to the same scale.

Work out an estimate for the height, in metres, of the building.

..... m

(Total for Question 8 is 2 marks)

Pearson Edexcel – Specimen 2 - Paper 3 (Calculator) Foundation Tier

3.

8 A model plane has a length of 17 cm.

The scale of the model is 1:200

Work out the length of the real plane.

Give your answer in metres.

..... metres

(Total for Question 8 is 2 marks)

Pearson Edexcel – Specimen 1 - Paper 1 (Non-Calculator) Foundation Tier

4.

15 This is a scale plan of a rectangular floor.



Diagram
accurately
drawn

Scale: 1 cm represents 2 m

Mrs Bridges is going to cover the floor with boards.
Each board is rectangular in shape.

Each board is 1.2 m long and 1 m wide.

Mrs Bridges has 150 boards.
Does she have enough boards?
You must show how you get your answer.

(Total for Question 15 is 3 marks)

Pearson Edexcel – Specimen 1 - Paper 2 (Calculator) Foundation Tier

5.

12 The length of a car is 3.6 metres.

Karl makes a scale model of the car.

He uses a scale of 1 cm to 30 cm.

Work out the length of the scale model of the car.

Give your answer in centimetres.

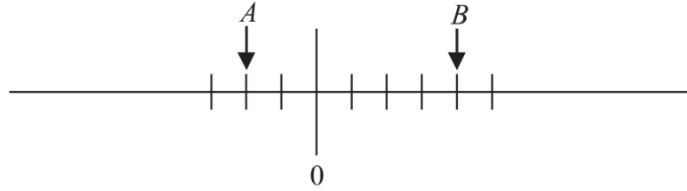
..... cm

(Total for Question 12 is 2 marks)

Pearson Edexcel – Specimen 1 - Paper 3 (Calculator) Foundation Tier

6.

9 The two numbers, A and B , are shown on a scale.



The difference between A and B is 48

Work out the value of A and the value of B .

$A =$

$B =$

(Total for Question 9 is 3 marks)

OCR – Tuesday 03 November 2020- Morning - Paper 1 (Calculator) Foundation Tier

7.

11 The scale on a map is 1 : 50 000.

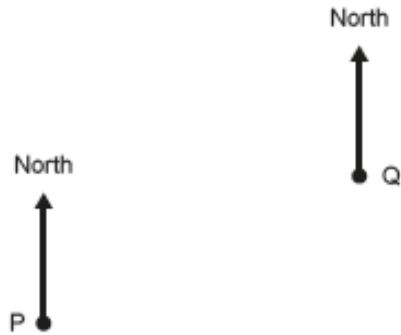
How many kilometres on the ground are represented by 8 cm on the map?

..... km [3]

8.

9 The scale drawing shows the positions of two boats, P and Q.

Scale: 1 cm represents 4 km



(a) Find the actual distance between boat P and boat Q.

(a) km [2]

(b) Measure the bearing of boat Q from boat P.

(b)° [1]

(c) A lighthouse is

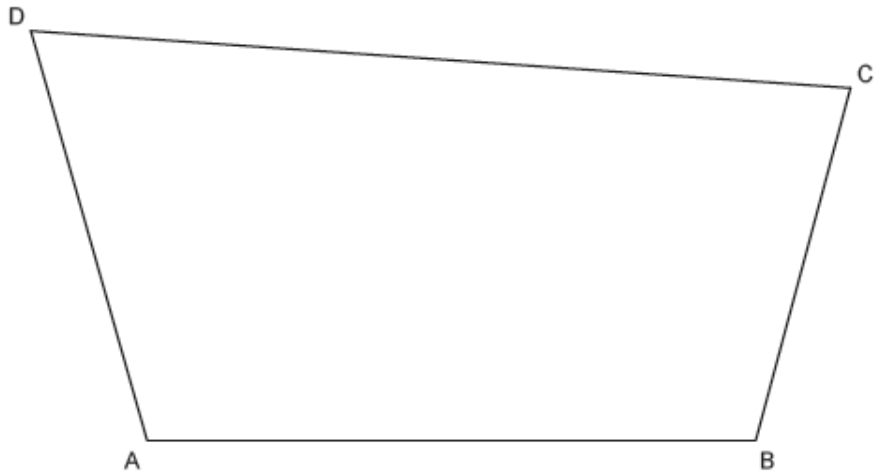
- 18 km from boat P
- on a bearing of 200° from boat Q.

On the scale drawing, mark a possible position of the lighthouse with a cross. [2]

9.

17 The diagram shows the scale drawing of a garden ABCD.

Scale: 1 cm represents 5m



A tree is to be planted in the garden so that it is

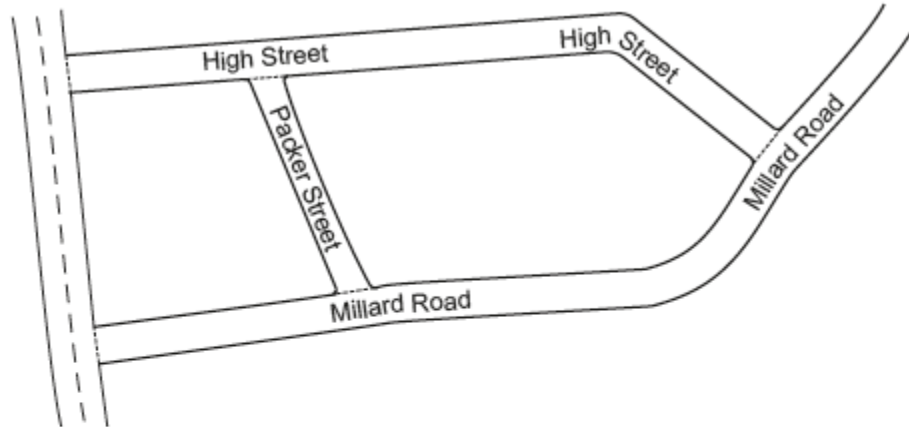
- at least 10 m from AB
- and
- closer to CD than CB
- and
- at least 15 m from D.

Using a ruler and compasses only, construct and shade the region in which the tree can be planted.

[6]

10.

23 This map shows part of a village.



Neil knows that Packer Street is 180m long in real life.

(a) Neil measures the map.

He says

Packer Street is 3.5 cm long.

High Street is 11.2 cm long.

Therefore, I calculate that High Street is 576 m long in real life.

Use Neil's figures to show that the answer to his calculation is correct.

[3]

(b) Jodie measures the same map.

She says

I think Packer Street is longer than Neil's measurement of 3.5 cm.
Therefore, High Street must be longer than 576 m in real life.

Is Jodie's reasoning correct?
Show how you decide.

..... [2]

(c) On another map, Packer Street is 2.4 cm long.

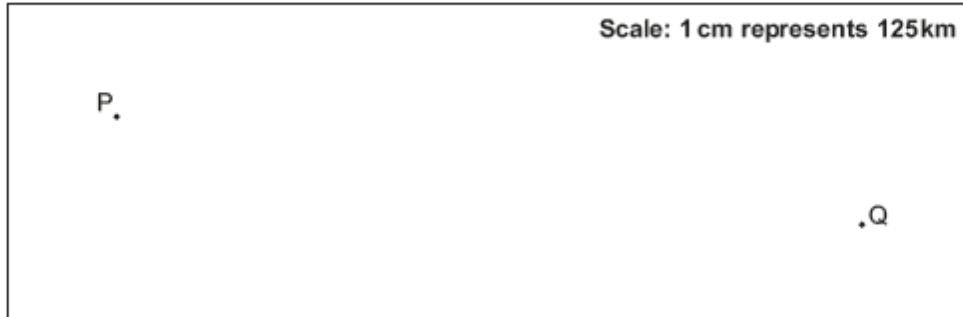
Express the scale of this map in the form 1 : n .

(c) 1 : [2]

OCR Monday 24 May 2018 – Morning (Calculator) Foundation Tier

11.

19 The scale diagram below shows two cities, P and Q.



A plane departs from P at 0947 and arrives at Q at 1207.

(a) Work out the average speed, in kilometres per hour, of the plane.

(a)km/h [5]

(b) Give one reason why your answer may be inaccurate.

.....
..... [1]

12.

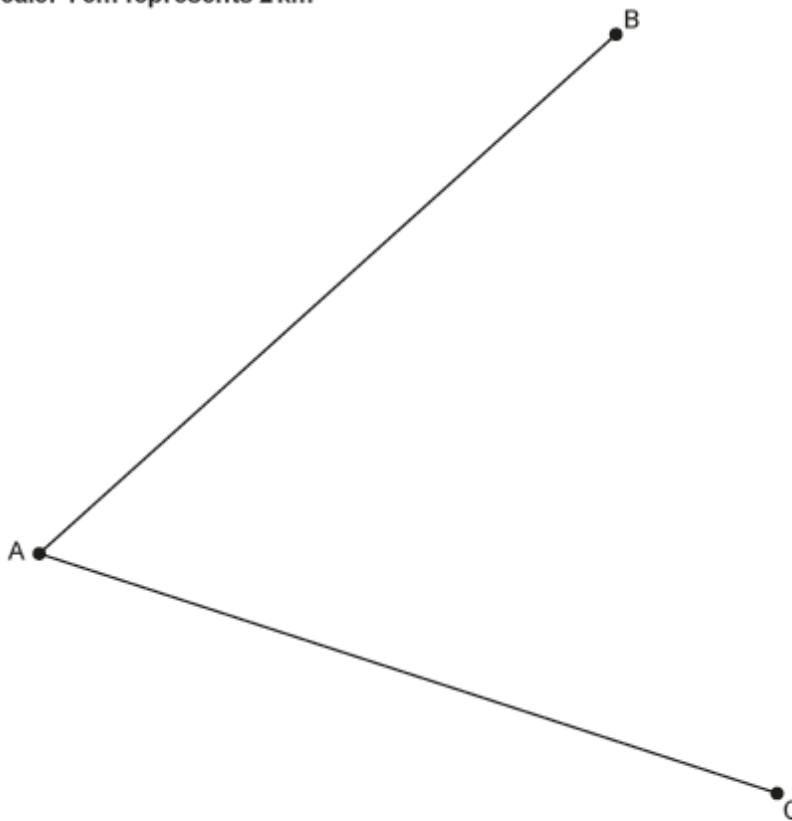
20 The scale diagram below shows towns, A, B and C.
Line AB represents the road from A to B and line AC represents the road from A to C.

A shopping centre is to be built so that it is

- nearer to the road from A to B than the road from A to C,
- less than 14km from town C.

(a) Using construction, shade the region where the shopping centre could be built.
Show all your construction lines.

Scale: 1 cm represents 2 km



[5]

(b) Explain why the region found in part (a) may not be an appropriate site for the shopping centre.

.....
..... [1]

OCR Thursday 2 November 2017– Morning (Calculator) Foundation Tier

13.

20 Four points A, B, C and D are shown on the scale diagram below.



Scale: 1 cm represents 5 m

(a) On the diagram, construct and mark the two points that are

- the same distance from A and B
- and
- 15m from C.

Show all your construction lines.

[5]

(b) The points A, B, C and D represent the four corners of Monty's garden. His garden is bounded by four straight fences A to B, B to C, C to D and D to A.

Monty wants to plant a tree in his garden at a place that satisfies the two conditions in part (a).

Explain why there is only one position where Monty can plant his tree.

.....

..... [1]

Pearson Edexcel –Sample Papers - Paper 2 (Calculator) Foundation Tier

14.

15 The diagram below represents two towns on a map.

Diagram
accurately drawn

×
Towey

×
Worsley

Scale: 1 cm represents 3 kilometres.

Work out the distance, in kilometres, between Towey and Worsley.

.....km

(Total for Question 15 is 2 marks)

OCR Thursday 25 May 2017 – Morning (Calculator) Foundation Tier

15.

13 (a) The ratio 20 minutes to 1 hour can be written in the form $1:n$.

Find the value of n .

(a) $n = \dots\dots\dots$ [1]

(b) The scale on a map is $1:25\,000$.

How many kilometres on the ground is represented by 6 cm on the map?

(b) $\dots\dots\dots$ km [3]

(c) Kiri and Peter share some sweets in the ratio $6:7$.

What fraction of the sweets does Kiri receive?

(c) $\dots\dots\dots$ [1]

16.

19 A scale drawing shows the positions of P , Q and R .



Not drawn accurately

On the scale drawing

$$PQ = 4 \text{ cm} \quad QR = 6.5 \text{ cm}$$

The actual distance PQ is 50 metres less than the actual distance QR .

Work out the scale.

[3 marks]

Answer 1 cm represents _____ metres

AQA Thursday 6 June 2019 – Morning (Calculator) Foundation Tier

17.

12

A drawing has a scale of 1 : 40

On the drawing, a bedroom is a rectangle measuring 10 cm by 18 cm

A kitchen has an actual area of 300 000 cm²

Which has the bigger actual area, the kitchen or the bedroom?

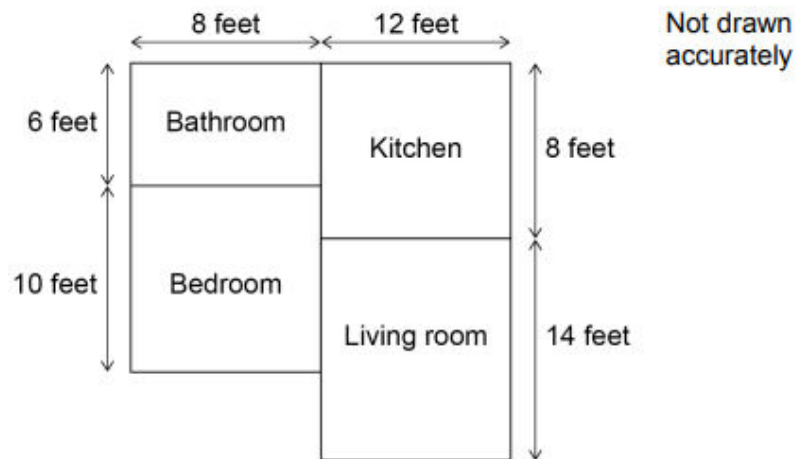
You **must** show your working.

[4 marks]

Answer _____

18.

6 Here is a plan of a flat with four rectangular rooms.



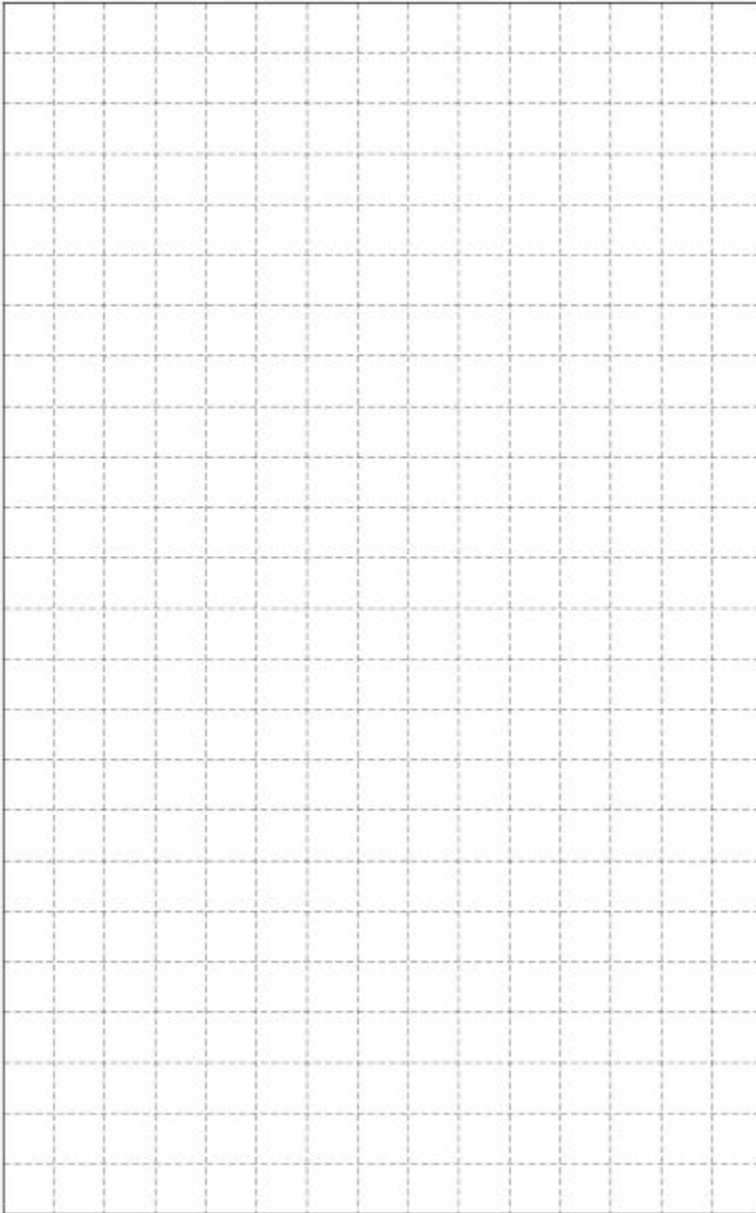
On the grid on the opposite page, make an accurate scale drawing of the plan.

Label each room.

Use a scale of 1 cm represents 2 feet

[3 marks]

Scale: 1 cm represents 2 feet



AQA Monday 12 November 2018 – Morning (Calculator) Foundation Tier

19.

- 17** Here is a map of Cuba.
1.5 cm represents 200 km



Work out the actual distance from Havana to Holguin.

[3 marks]

Answer _____ km

AQA Thursday 24 May 2018 – Morning (Non-Calculator) Foundation Tier

20.

- 18** Circle the ratio which is the same as the scale 1 cm represents 1 km

[1 mark]

1 : 100

1 : 1000

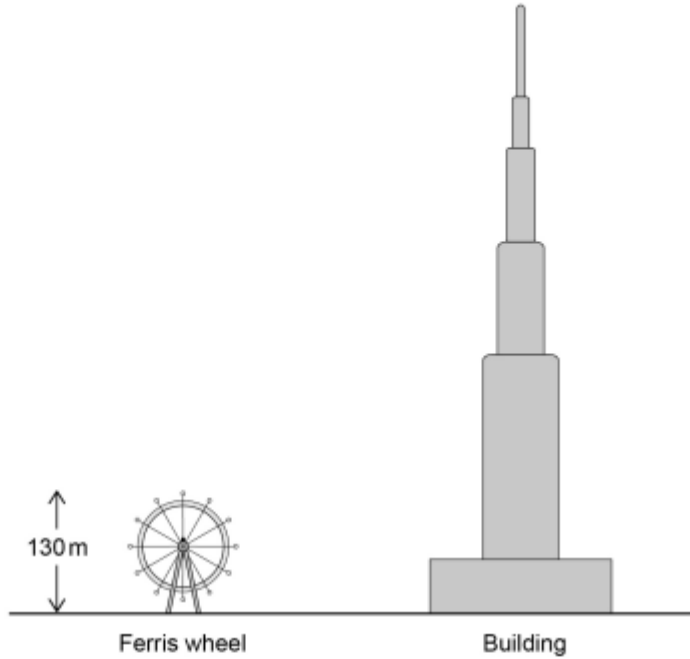
1 : 10 000

1 : 100 000

AQA Tuesday 12 June 2018 – Morning (Calculator) Foundation Tier

21.

10 Here is a scale drawing.



The Ferris wheel has a height of 130 m

Work out the height of the building.

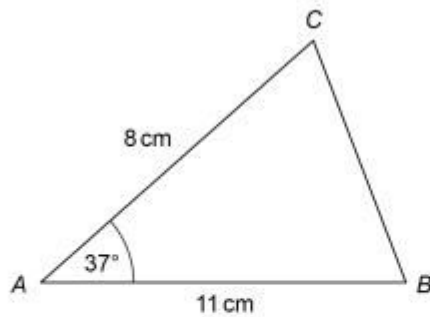
[3 marks]

Answer _____ m

AQA Tuesday 12 June 2018 – Morning (Calculator) Foundation Tier

22.

16 A sketch of triangle ABC is shown.



Not drawn accurately

In the space below, complete an accurate drawing of triangle ABC .

[2 marks]

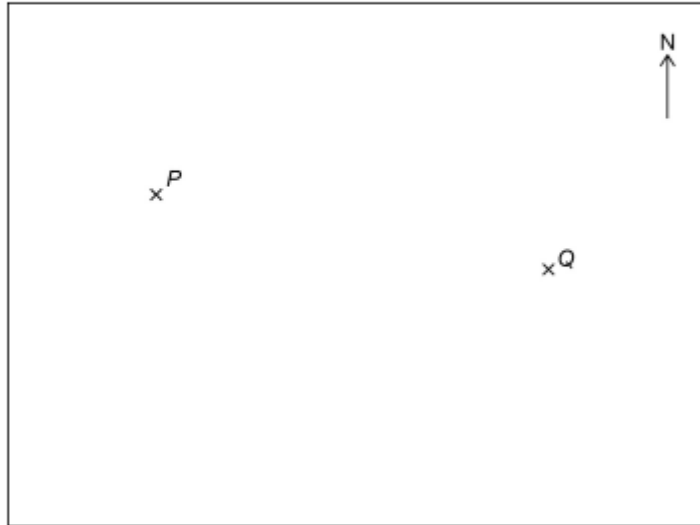


AQA Wednesday 8 November 2017 – Morning (Calculator) Foundation Tier

23.

15 Here is a map showing two towns, *P* and *Q*.

Scale: 1 cm represents 50 km



15 (a) Work out the **actual** distance between towns *P* and *Q*.

[2 marks]

Answer _____ km

15 (b) Town *R* is 200 km due South of town *P*.

Mark *R* on the map.

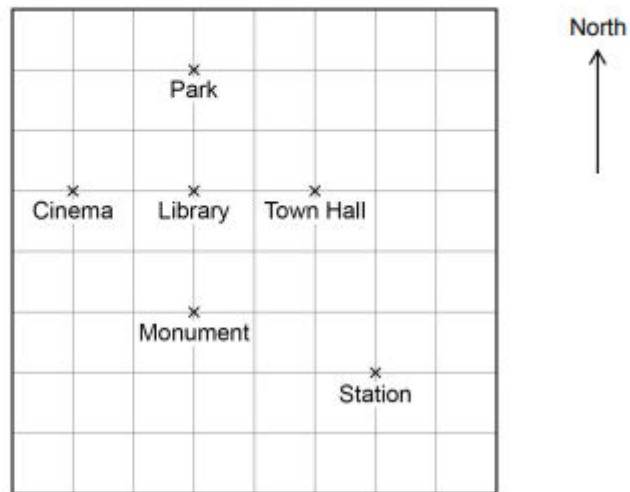
[2 marks]

AQA Thursday 8 June 2017– Morning (Calculator) Foundation Tier

24.

8 Here is a map of a town.

Scale: 1 cm represents 200 m



8 (a) Which place is exactly North West of the Station?
Circle your answer.

[1 mark]

Cinema Town Hall Library Park Monument

8 (b) Circle the three-figure bearing of the Monument from the Park.

[1 mark]

090° 180° 270° 360°

8 (c) What is the distance, in metres, from the Cinema to the Station?

[3 marks]

Answer _____ metres

8 (d) Why might the shortest **walking** distance from the Cinema to the Station be greater than your answer to part (c)?

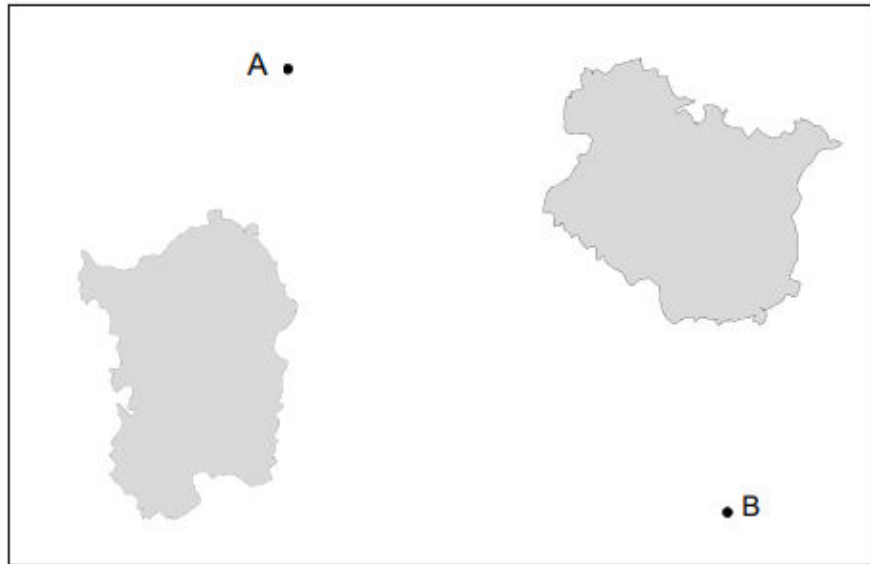
[1 mark]

AQA Sample Paper 2– Morning (Calculator) Foundation Tier

25.

- 5 The map shows the positions of two ships, A and B.

Scale: 1 cm represents 2.5 km



Work out the actual distance between the ships.

[2 marks]

Answer _____ km

AQA Sample Paper 2– Morning (Calculator) Foundation Tier

26.

16 A company's logo

- is a pentagon
- has exactly one line of symmetry
- has sides with whole number lengths
- has a perimeter of 15 cm

Draw a sketch of a possible logo.

Label each side with its length.

[2 marks]