

Bearings, Scale Drawing & Constructions

Question Paper

Course	Edexcel IGCSE Maths
Section	4. Geometry & Trigonometry
Topic	Bearings, Scale Drawing & Constructions
Difficulty	Easy

Time allowed: 40
Score: /33
Percentage: /100

Question 1

The bearing of a ship from a lighthouse is 050° .

Work out the bearing of the lighthouse from the ship.

[2 marks]

Question 2a

Manchester airport is on a bearing of 330° from a London airport.

Find the bearing of the London airport from Manchester airport.

[2 marks]

Question 2b

The London airport is 200 miles from Manchester airport.

A plane leaves Manchester airport at 10 am to fly to the London airport.

The plane flies at an average speed of 120 mph.

What time does the plane arrive at the London airport?

[4 marks]

Question 3

Martin and Janet are in an orienteering race.

Martin runs from checkpoint A to checkpoint B , on a bearing of 065° .

Janet is going to run from checkpoint B to checkpoint A .

Work out the bearing of A from B .

[2 marks]

Question 4

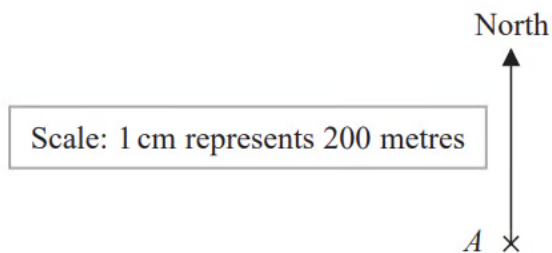
The bearing of Paris from London is 149° .

Work out the bearing of London from Paris.

[2 marks]

Question 5a

The scale diagram shows the position on a map of a house, A



House C is on a bearing of 110° from A .

The distance from A to C is 700 m.

Mark the position of C on the diagram with a cross (\times).

Label your cross C .

[3 marks]

Question 5b

Write the scale of the map in the form 1 : n

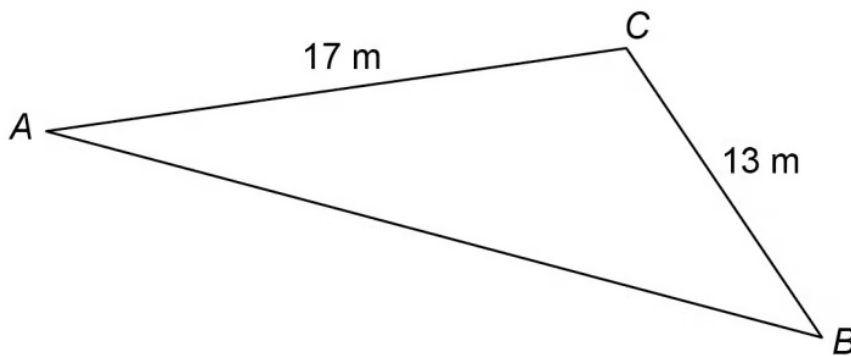
1 :

[1 mark]

Question 6

Here is a triangle.

Not drawn
accurately



Give a reason why the length of side AB **cannot** be 35 m

[1 mark]

Question 7

The bearing of A from B is 310°

Circle the bearing of B from A .

050°

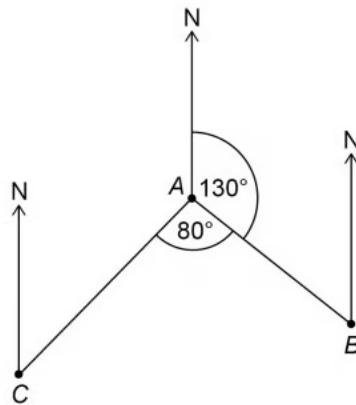
110°

130°

220°

[1 mark]

Question 8



Not drawn accurately

Work out the bearing of C from A .

Circle your answer.

030°

130°

150°

210°

[1 mark]

Question 9

An equilateral triangle has side length 16 metres.

Using ruler and compasses only, construct a scale drawing of the triangle.

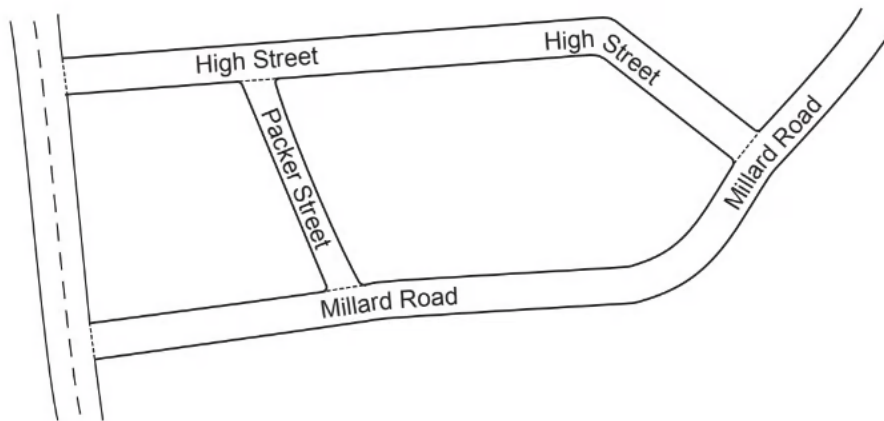
Use the scale 1 centimetre represents 2 metres.

Scale: 1 cm represents 2 m

[3 marks]

Question 10a

This map shows part of a village.



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

i)
Neil measures the map.
He says

Packer Street is 3.5cm long.
High Street is 11.2cm long.
Therefore, I calculate that High Street is 576m long in real life.

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

[3]

ii)
Jodie measures the same map.
She says

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

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

[2]

[5 marks]

Question 10b

On another map, Packer Street is 2.4cm long.

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

1 :

[2 marks]

Question 11

A model railway is built using the scale 1 : 87.

On the model railway, the distance between the rails is 16.5 mm.



Calculate, in metres, the distance between the rails for a full-size train.

..... metres

[2 marks]

Question 12

The scale of a map is 1 cm represents 25 m.

i)

The length of a path is 240 m.

Work out the length, in centimetres, of the path on the map.

..... cm [1]

ii)

The scale 1 cm represents 25 m can be written in the form 1: k .

Find the value of k .

$k =$ [1]

[2 marks]