

Bearings

For Pearson Edexcel GCSE Mathematics (1MA1) • Foundation tier

Name _____

Total marks: **22**

Answer **all** questions in the spaces provided. Show your working: marks are given for correct method. You will need a ruler and protractor. Diagrams marked 'accurate' are drawn to scale: print at 100%.

1 Write down the three-figure bearing for each direction.

(a) East

.....
(1)

(b) South-West

.....
(1)

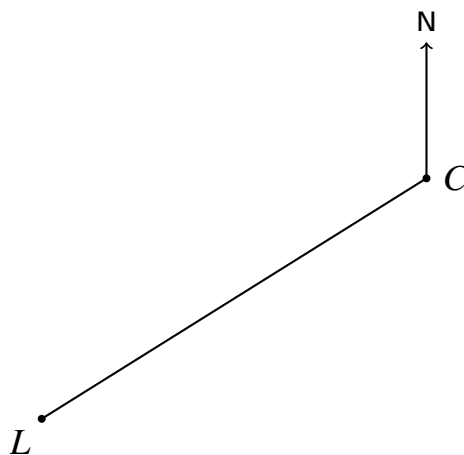
(Total for Question 1 is 2 marks)

2 The bearing of P from Q is 125°
Work out the bearing of Q from P .

.....
(2)

(Total for Question 2 is 2 marks)

- 3 The accurately drawn map shows the positions of a campsite C and a lake L .



- (a) Measure the bearing of the lake L from the campsite C .

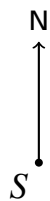
..... °
(1)

- (b) The scale of the map is 1 : 40 000
Work out the real distance from C to L .
Give your answer in kilometres.

..... km
(2)

(Total for Question 3 is 3 marks)

- 4 The diagram shows the position of a ship, S .

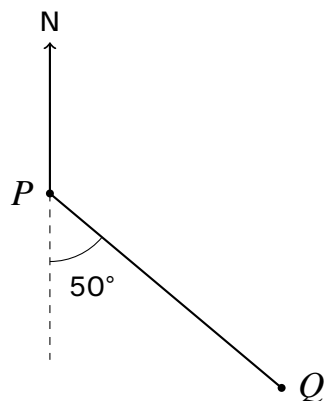


The lighthouse L is 6 km from S on a bearing of 110°
The scale is 1 cm represents 1 km.
Mark the position of L with a cross ($\times$).

(2)

(Total for Question 4 is 2 marks)

- 5 The diagram shows the positions of two trees, P and Q .



Kofi says,

“The bearing of Q from P is 050° ”

Kofi is wrong.

Explain why.

(1)

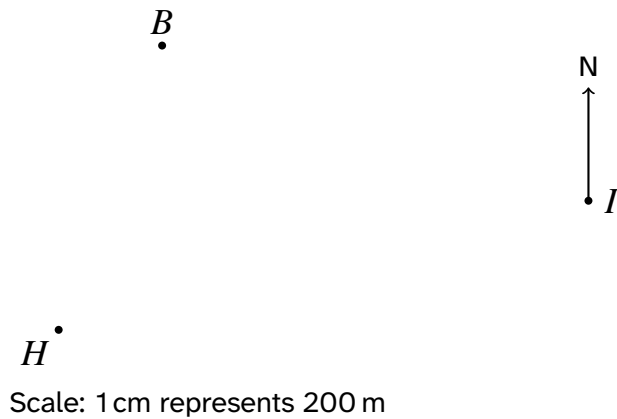
(Total for Question 5 is 1 mark)

- 6 The bearing of B from A is 080°
 The bearing of C from B is 200°
 Work out the size of angle ABC .

.....[°]
 (3)

(Total for Question 6 is 3 marks)

- 7 The accurately drawn map shows a harbour H , a buoy B and an island I .



- (a) A kayaker paddles in a straight line from H to B .
 She then paddles in a straight line from B to I .
 She paddles at an average speed of 4 km/h.
 How many minutes does her trip take?

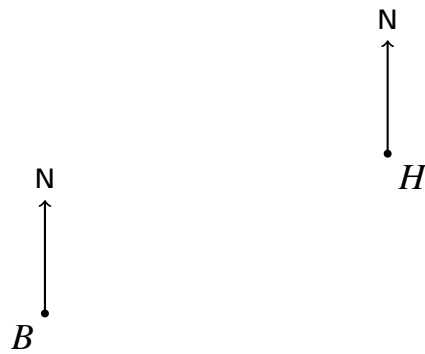
..... minutes
 (3)

- (b) Find by measurement the bearing of H from I .

.....[°]
 (1)

(Total for Question 7 is 4 marks)

- 8 The accurately drawn map shows the positions of a helicopter base B and a hospital H .



Scale: 1 cm represents 4 km

- (a) The helicopter flies in a straight line from B to H in 10 minutes.
Work out its average speed in km/h.

..... km/h
(3)

- (b) From H , the helicopter flies 12 km on a bearing of 330° to a village V .
Mark the position of V with a cross ($\times$).

(2)

(Total for Question 8 is 5 marks)