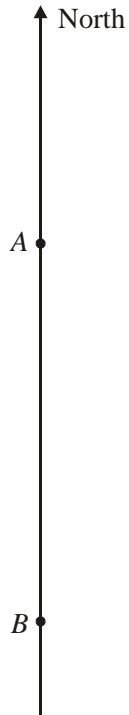


**Mathematics GCSE – Bearings**

Name \_\_\_\_\_

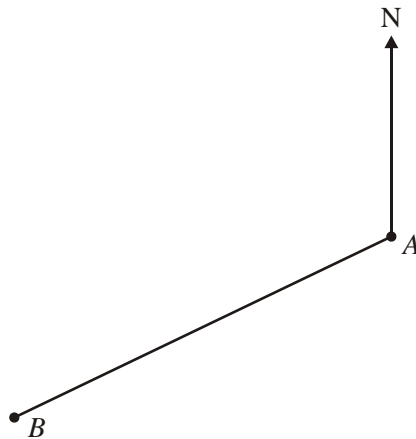
- I.*  $A$  is due North of  $B$ .  
The bearing of  $C$  from  $A$  is  $115^\circ$ .  
The bearing of  $C$  from  $B$  is  $075^\circ$ .



Mark the position of  $C$  on the diagram.

**(Total 3 marks)**

2. The diagram shows a scale drawing of two points, *A* and *B*.



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

Answer .....

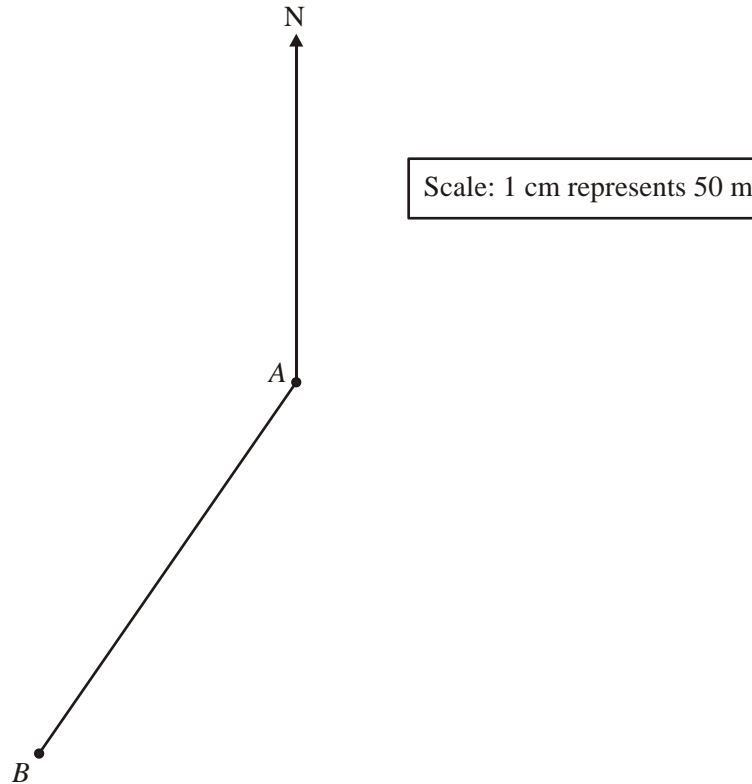
(1)

(b) The point *C* is South-East of *A* and on a bearing of  $100^\circ$  from *B*. Draw the position of *C* on the diagram.

(2)

**(Total 3 marks)**

3. The diagram shows a scale drawing of one side,  $AB$ , of a triangular field,  $ABC$ .



(a) Use the diagram to calculate the actual distance from  $A$  to  $B$ .

.....  
 .....

Answer .....metres

(2)

(b) Measure and write down the three figure bearing of  $B$  from  $A$ .

Answer .....°

(1)

(c) The bearing of  $C$  from  $A$  is  $130^\circ$ .  
 The actual distance from  $A$  to  $C$  is 350 metres.  
 Mark the point  $C$  on the diagram.

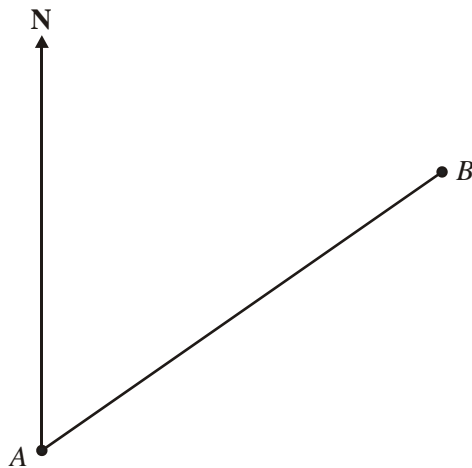
.....

(2)

(Total 5 marks)

4. The diagram shows a scale drawing of two points, *A* and *B*, on an orienteering course.

Scale: 1 cm represents 50 m



(a) Use the diagram to work out the actual distance from *A* to *B*.

.....  
.....

Answer ..... metres

(2)

(b) Measure and write down the three-figure bearing of *B* from *A*.

Answer ..... degrees

(1)

(c) The bearing of point *C* from *A* is  $300^\circ$ . What is the three-figure bearing of *A* from *C*?

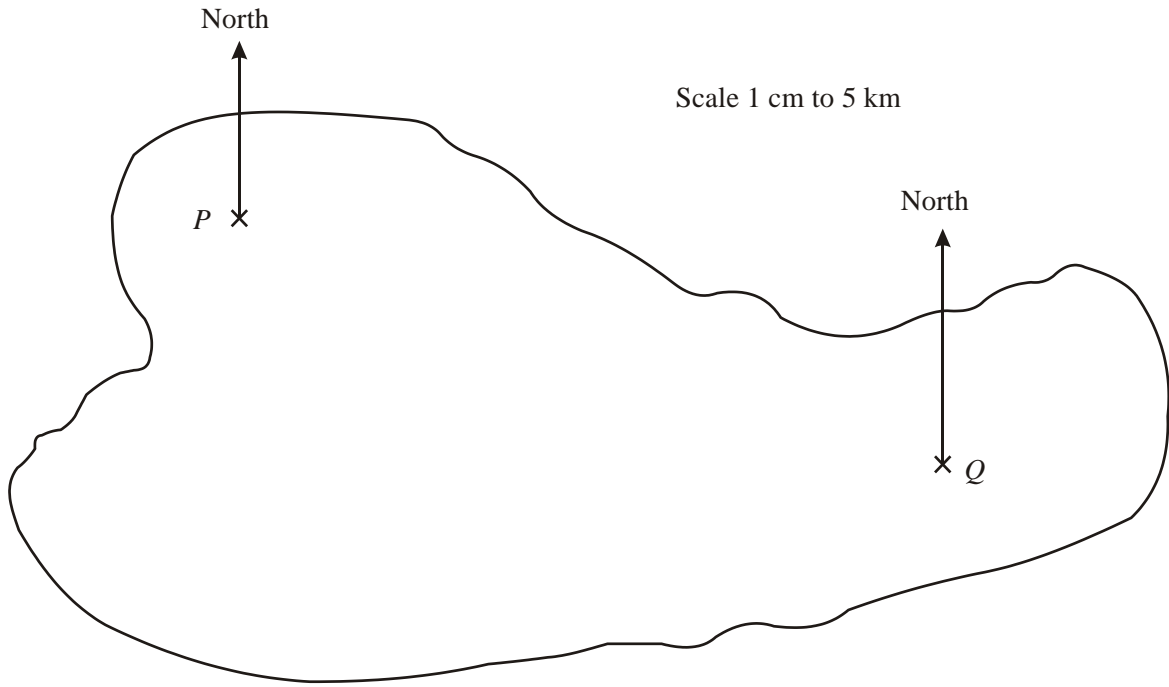
.....  
.....

Answer .....degrees

(2)

(Total 5 marks)

5. The map of an island is shown.



*P* and *Q* are the positions of two houses on the island.

(a) What is the bearing of *P* from *Q*?

.....

Answer .....°

(1)

(b) Calculate the actual distance from *P* to *Q* in kilometres.

.....

.....

Answer .....km

(2)

(c) A house is 20 km from *P* on a bearing of 130°. Mark the position of the house on the diagram with a **X**.

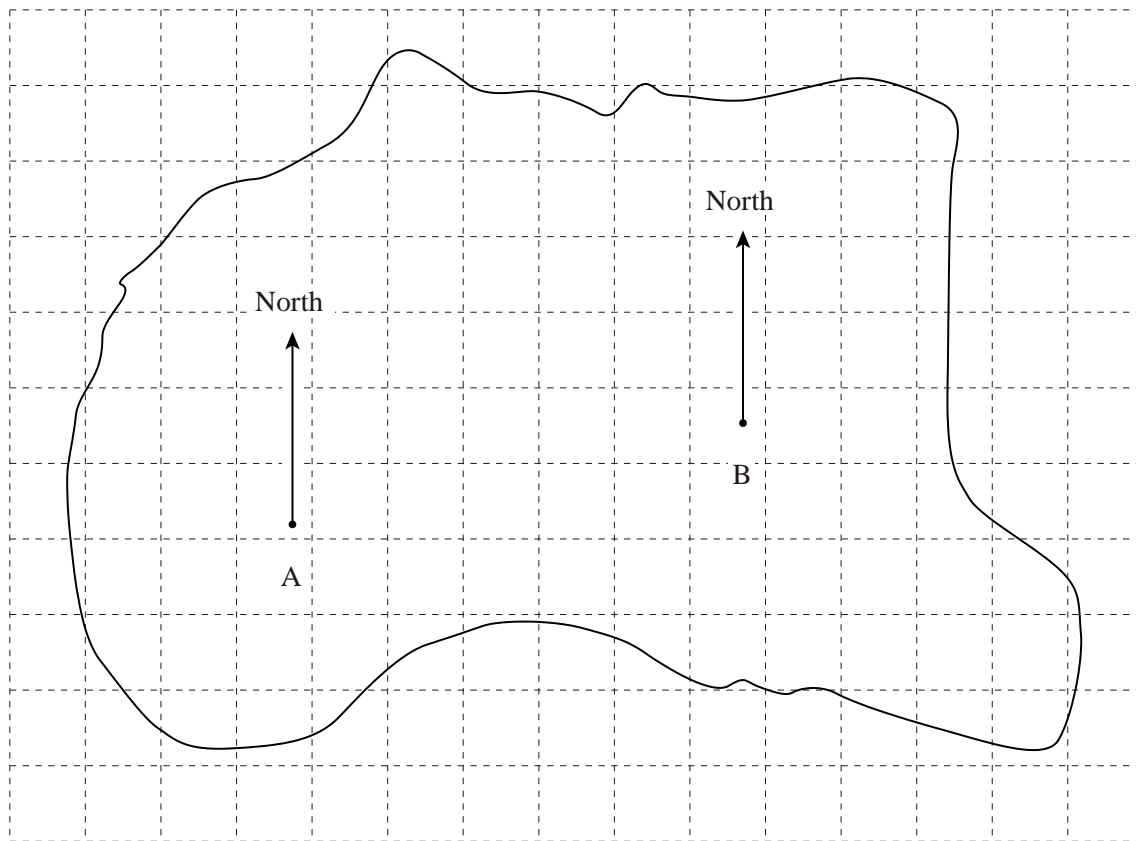
.....

(2)

(Total 5 marks)

6. The diagram shows an island with North lines drawn at points A and B.

Scale: 1 cm to 5 km



(a) Treasure is buried on a bearing of  $037^\circ$  from A and  $290^\circ$  from B. Mark, with a  $\times$ , the position of the treasure.

(3)

(b) Find the real distance between the points A and B.

.....

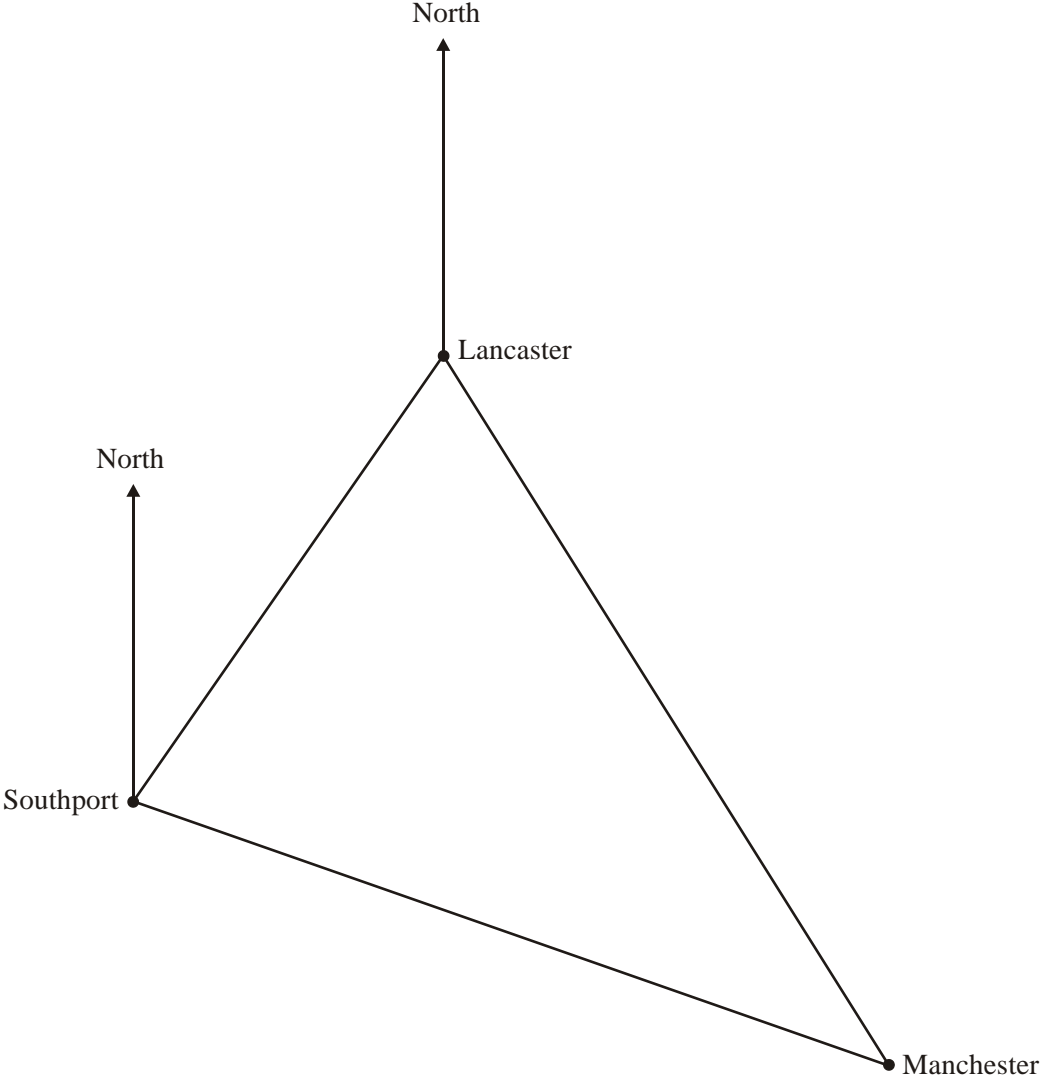
Answer ..... km

(3)

(Total 6 marks)

7. (a) The map shows the positions of three places.

Scale: 1cm represents 4 miles



(i) What is the bearing of Lancaster from Southport?

.....

Answer ..... degrees

(1)

(ii) What is the bearing of Manchester from Lancaster?

.....

Answer ..... degrees

(1)

(iii) Work out the distance in miles from Manchester to Southport.

.....

.....

.....

Answer ..... miles

(3)

(b) The distance from Lancaster to London is 240 miles.  
Marianna takes 5 hours to travel from Lancaster to London.  
Calculate her average speed in miles per hour.

.....

.....

.....

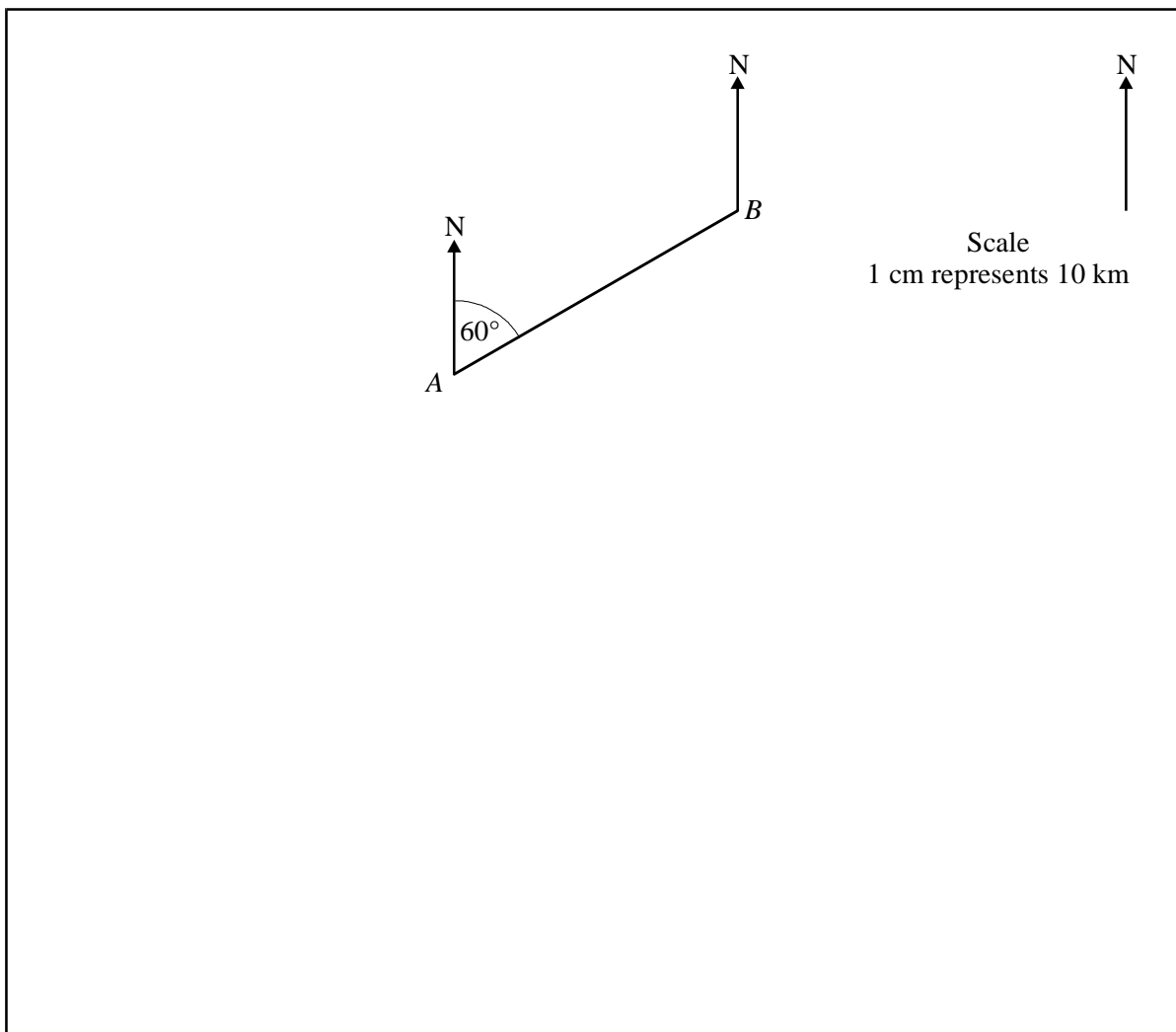
Answer ..... miles per hour

(2)

(Total 7 marks)



8. The diagram shows the positions of *A* and *B*.  
 The diagram is drawn to scale.  
 1 cm represents 10 km.



- (a) Use the diagram to calculate the actual distance of *B* from *A*.

.....  
 .....

Answer ..... km

(2)

- (b) *C* is due south of *B*.

- (i) Write down the three figure bearing of *C* from *B*.

Answer ..... °

(1)

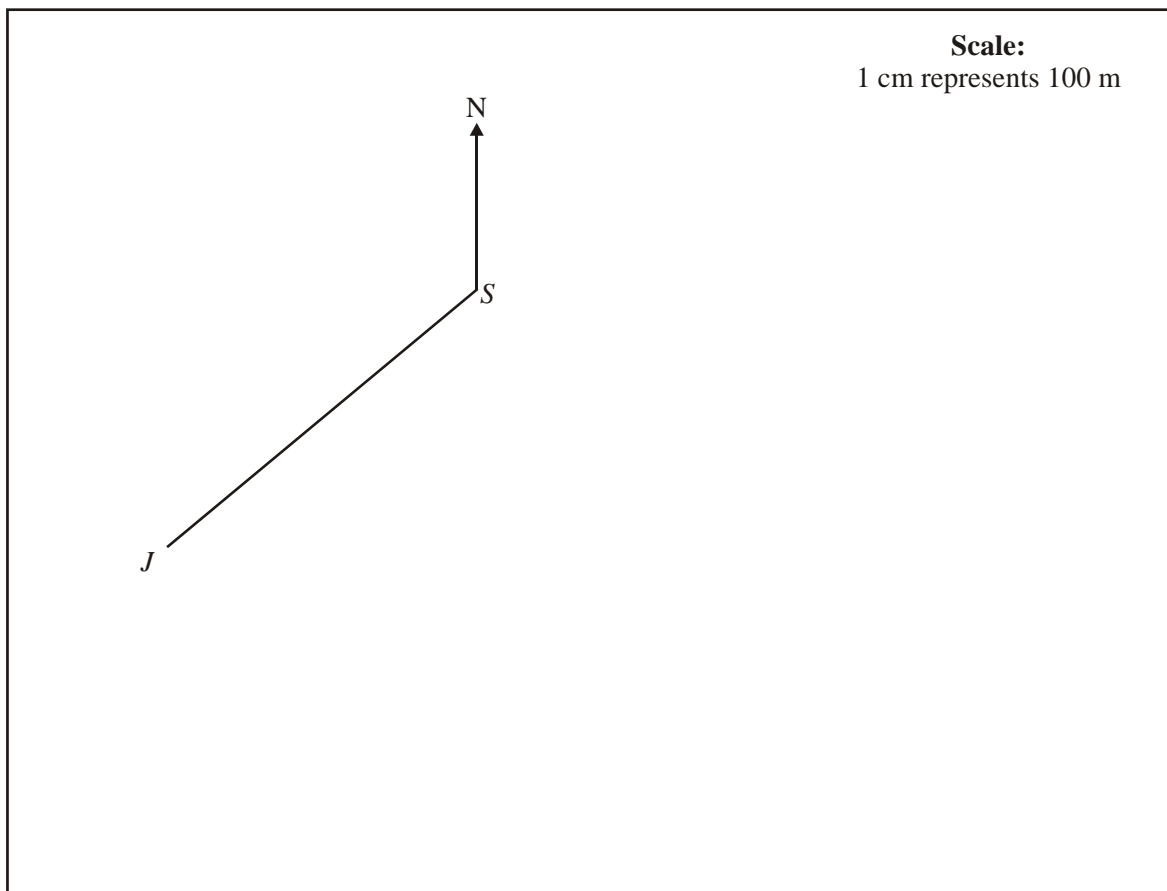
- (ii) *C* is also on a bearing of 150° from *A*.

Mark the position of *C* on the diagram.

(2)

(Total 5 marks)

9. The diagram shows the positions of Joe's house, *J*, and the local shop, *S*.  
The diagram is drawn to scale.  
1 cm represents 100 m.



- (a) Use the diagram to calculate the actual distance from Joe's house to the shop.

.....  
.....

Answer ..... metres

(2)

- (b) Measure and write down the three figure bearing of Joe's house from the shop.

.....

Answer .....°

(1)

- (c) Kate's house, *K*, is 450 metres from the shop on a bearing of 120°. Mark the position of *K* on the diagram.

(2)

(Total 5 marks)