

# 5.5

# Bearings

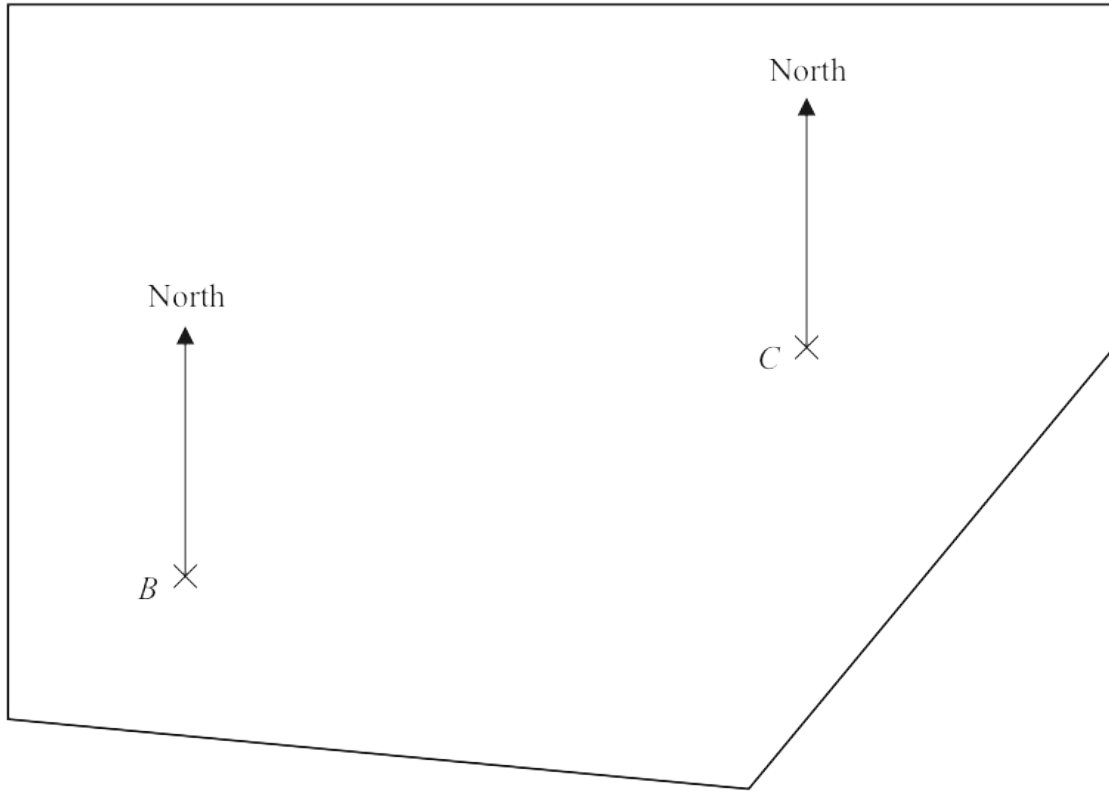
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17 The accurate scale drawing shows the positions of two trees,  $B$  and  $C$ , in a field.



The scale of the drawing is 1 cm to 20 m.

A third tree,  $D$ , is also in the field.

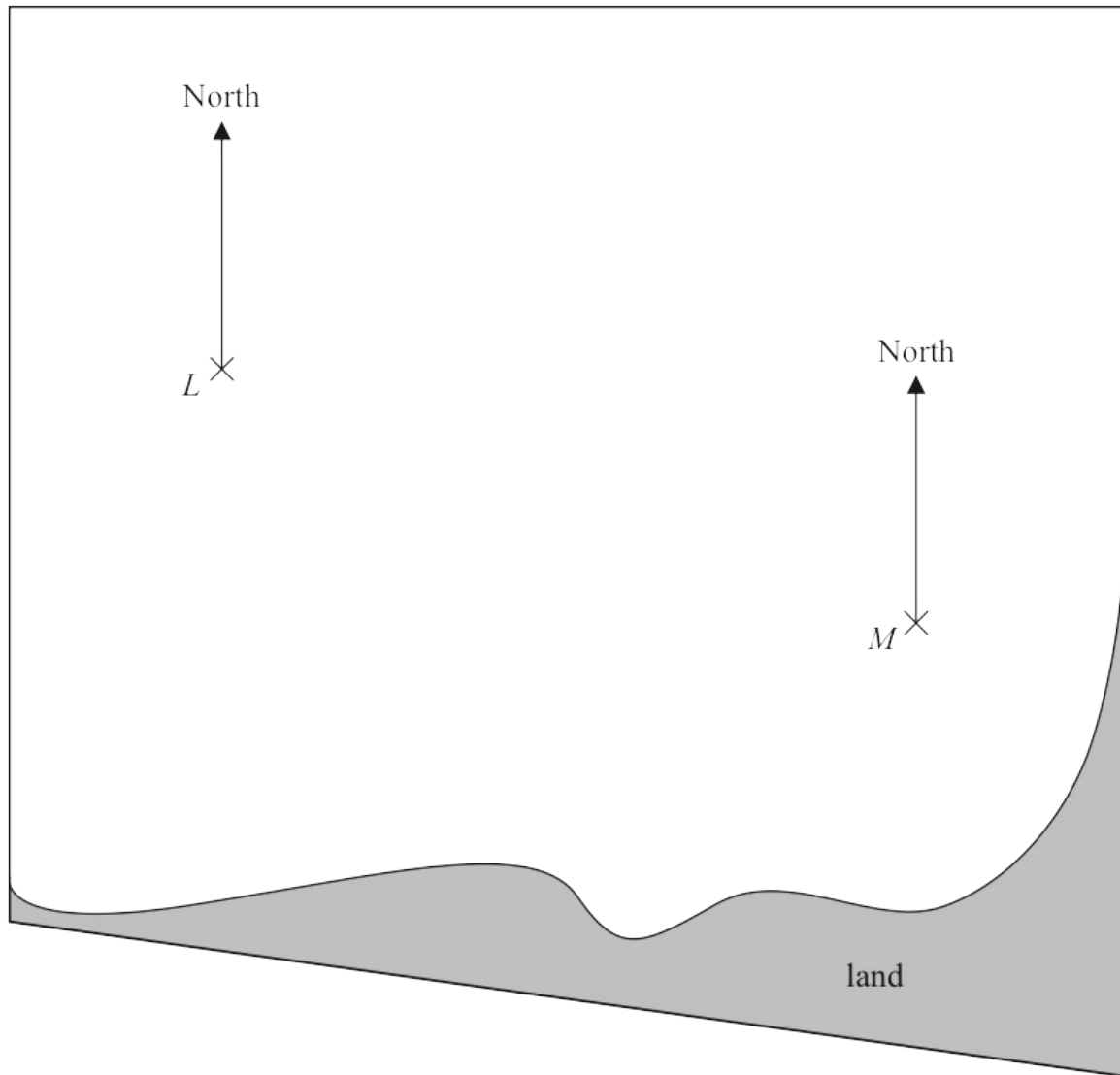
$D$  is 110 m from  $B$  and on a bearing of  $220^\circ$  from  $C$ .

Find the position of  $D$ .

Mark this point with a cross ( $\times$ ) and label it  $D$ .

(Total for Question 17 is 3 marks)

14 The accurate scale drawing shows the positions of two ships,  $L$  and  $M$ .



(a) Find the bearing of ship  $M$  from ship  $L$ .

.....  
 (1)

The scale of the drawing is 1 cm to 5 km.

Ship  $P$  is 40 km from  $L$  and on a bearing of  $240^\circ$  from  $M$ .

(b) On the diagram, mark with a cross ( $\times$ ) the position of ship  $P$ .

(3)

(Total for Question 14 is 4 marks)

- 23 From point  $A$ , Stanley walks 200 m due east to point  $B$ .  
From  $B$ , he then walks 160 m due south to point  $C$ .

Work out the length of  $AC$ .

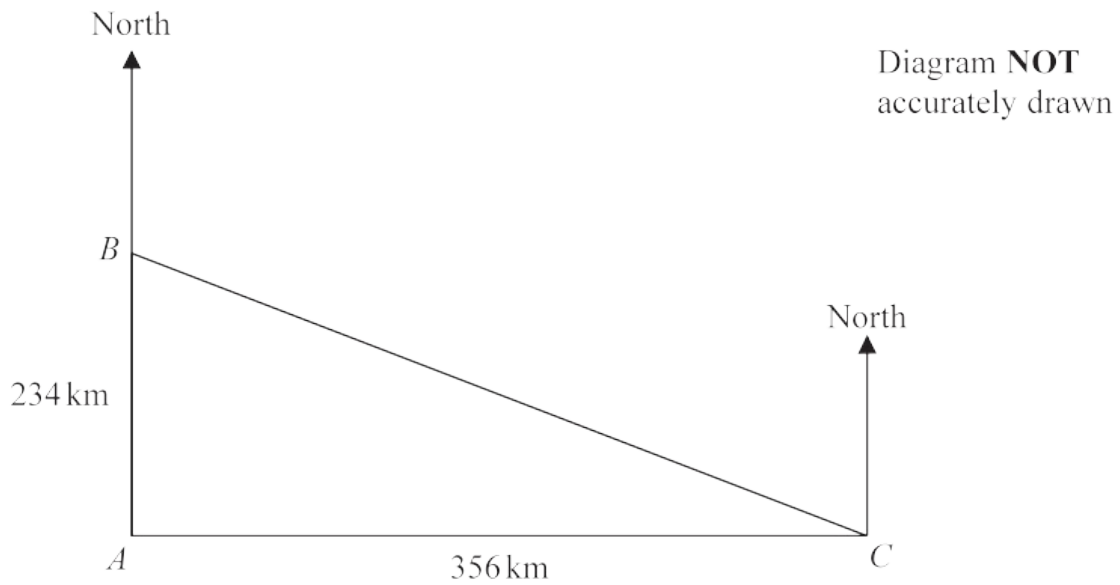
Give your answer correct to 3 significant figures.

.....metres

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(Total for Question 23 is 3 marks)

21 The diagram shows the positions of three ships  $A$ ,  $B$  and  $C$ .



$B$  is 234 km due north of  $A$ .

$C$  is 356 km due east of  $A$ .

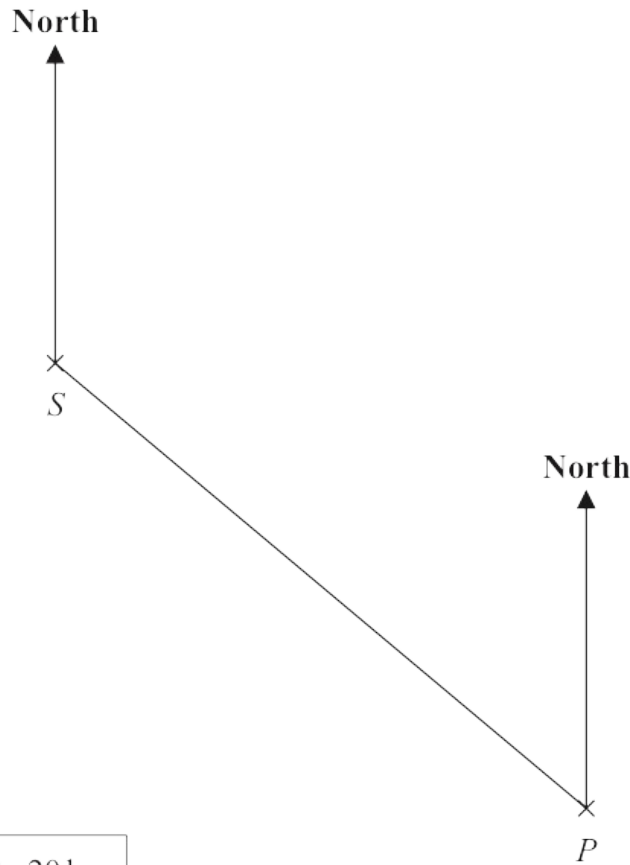
Work out the bearing of  $B$  from  $C$ .

Give your answer correct to the nearest degree.

(Total for Question 21 is 4 marks)



13 The scale drawing shows the positions of a ship,  $S$ , and a port,  $P$ .



Scale: 1 cm represents 20 km

(a) Find the bearing of  $S$  from  $P$ .

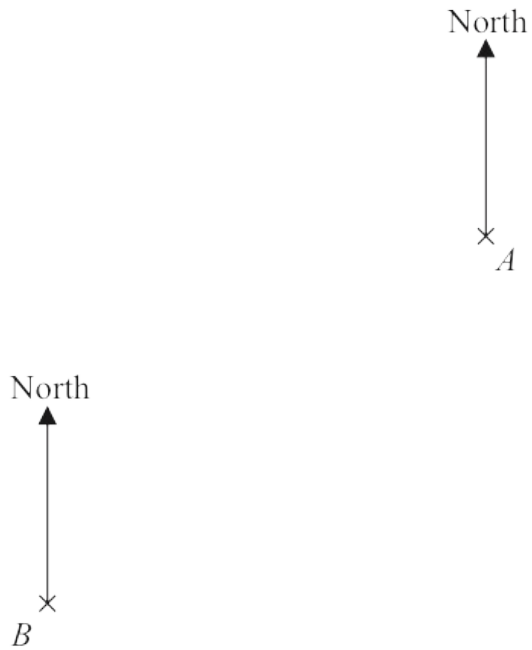
.....  
(1)

The ship  $S$  now sails directly towards port  $P$ .  
The ship sails at an average speed of 24 km/h.

(b) Work out how long it takes the ship to get to  $P$ .  
Give your answer correct to the nearest hour.

..... hours  
(4)

10 The accurate scale drawing shows the positions of two mobile phone masts,  $A$  and  $B$ .



The scale is 1 cm to 2.5 km.

(a) Find the bearing of  $A$  from  $B$ .

.....  
 (1)

(b) Work out the actual distance, in km, between  $A$  and  $B$ .

..... km  
 (2)

A third mobile phone mast,  $C$ , is put up.  
 $C$  will be on a bearing of  $115^\circ$  from  $A$ .  
 $C$  will be 20 km from  $B$ .

(c) Find the position of  $C$ .  
 Mark this point with a cross ( $\times$ ) and label it  $C$ .

(3)

(Total for Question 10 is 6 marks)

13 The diagram shows the positions of three villages,  $R$ ,  $T$  and  $W$ .

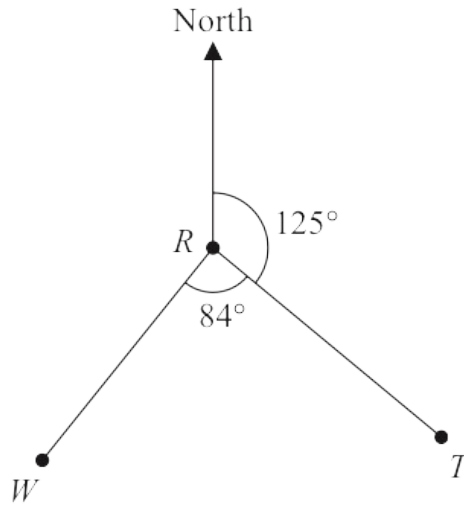


Diagram **NOT** accurately drawn

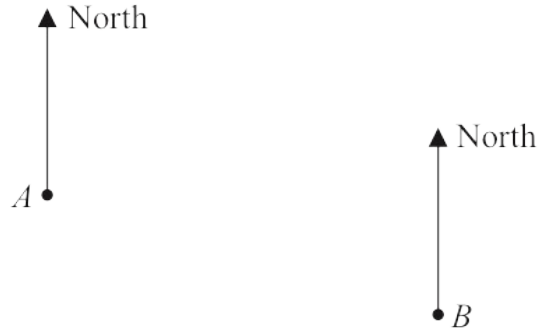
(a) Work out the bearing of village  $W$  from village  $R$ .

.....  
(1)

(b) Work out the bearing of village  $R$  from village  $T$ .

.....  
(2)

9 The scale diagram shows the positions of a post office ( $A$ ) and a police station ( $B$ ) in a town.



(a) Measure the bearing of  $B$  from  $A$ .



The town hall is at a position  $C$ .  
The bearing of  $A$  from  $C$  is  $045^\circ$

(b) Calculate the bearing of  $C$  from  $A$ .



17 The bearing of Paris from London is  $149^\circ$

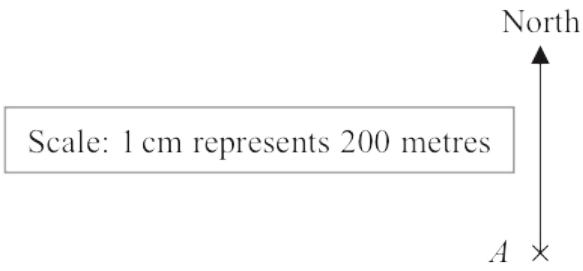
Work out the bearing of London from Paris.

○

.....  
**(Total for Question 17 is 2 marks)**

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



House  $C$  is on a bearing of  $110^\circ$  from  $A$   
The distance from  $A$  to  $C$  is 700 m

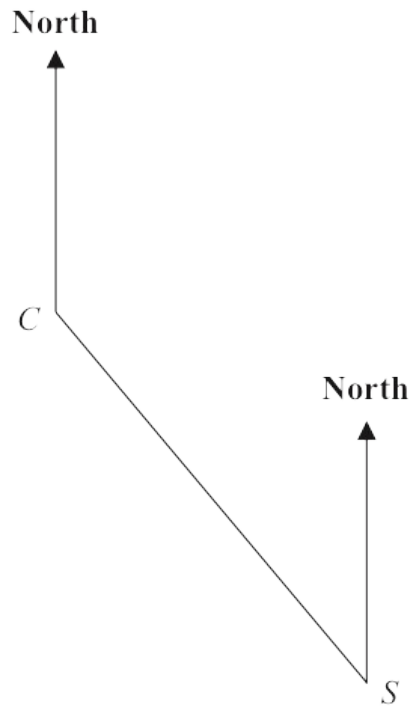
- (a) Mark the position of  $C$  on the diagram with a cross ( $\times$ )  
Label your cross  $C$

(3)

- (b) Write the scale of the map in the form  $1 : n$

1 : .....  
(1)

17 The accurate scale drawing shows the position of a college  $C$  and a train station  $S$



Scale: 1 cm represents 500 m

(a) Find the bearing of  $S$  from  $C$

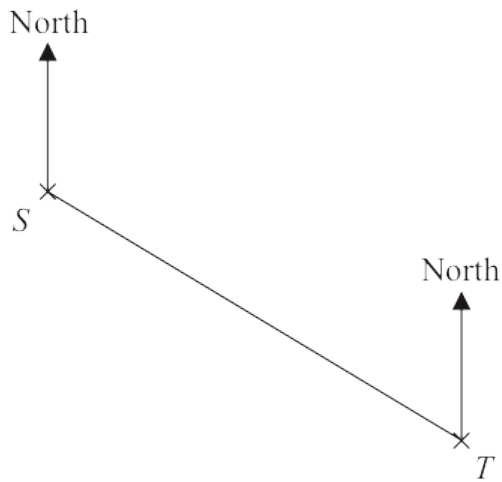
.....  
(1)

For Charles,  
1 step = 0.44 m

(b) Work out the number of steps Charles walks as he goes in a straight line from the college to the train station.  
Give your answer correct to the nearest whole number of steps.

.....  
(4)

14 The accurate scale drawing shows the positions of two lighthouses,  $S$  and  $T$



The scale of the drawing is 1 cm to 2 km

(a) Find, by measuring, the bearing of lighthouse  $T$  from lighthouse  $S$

.....°  
(1)

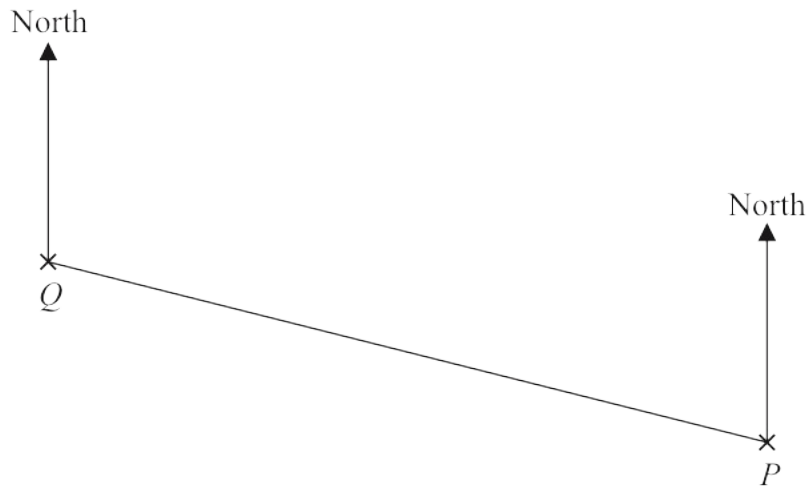
A boat is on a bearing of  $084^\circ$  from  $S$   
The boat is 13 km from  $T$

(b) On the diagram, mark with a cross ( $\times$ ) the position of the boat.  
Label the cross  $B$

(3)

(Total for Question 14 is 4 marks)

16 The scale drawing shows the positions of two airports  $P$  and  $Q$

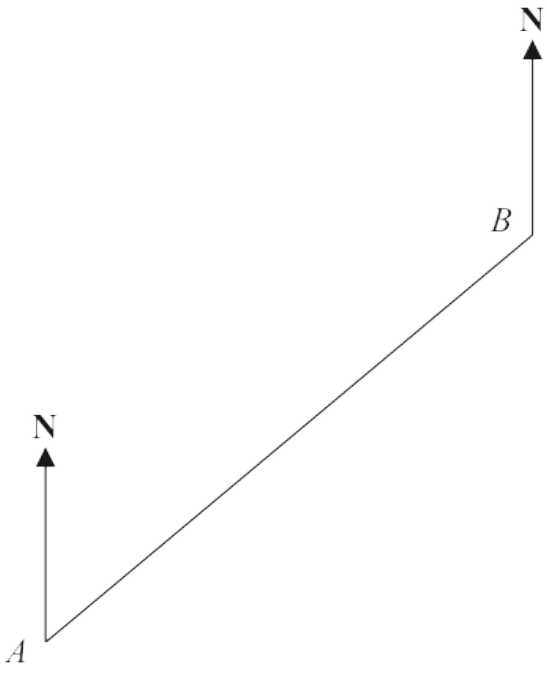


scale: 1 cm represents 50 km

(a) Find, by measuring, the bearing of  $P$  from  $Q$

.....  
(1)

12 The scale drawing shows the positions of two boats, *A* and *B*



Scale: 1 cm represents 3 km

(a) Work out the actual distance, in kilometres, between *A* and *B*

..... km  
(2)

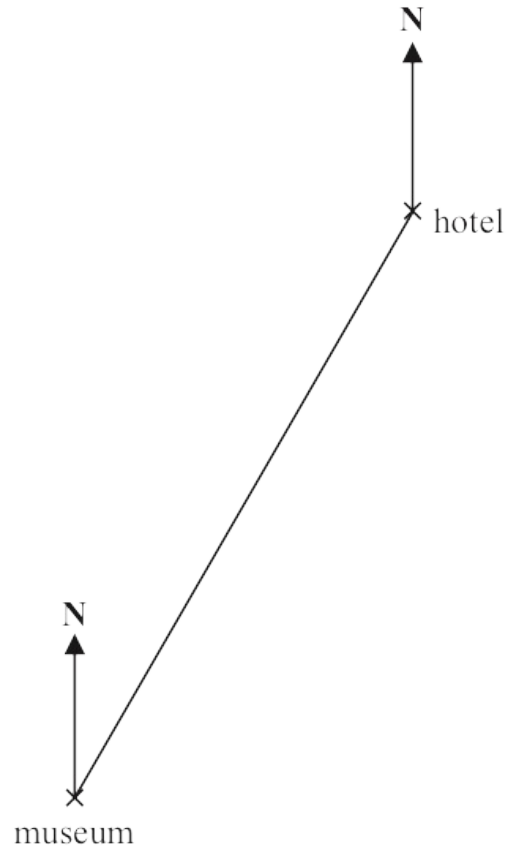
Boat *C* is on a bearing of  $110^\circ$  from *B*  
Boat *C* is 24 km from *B*

(b) On the scale drawing, mark with a cross ( $\times$ ) the position of boat *C*

(3)

(Total for Question 12 is 5 marks)

14 Here is an accurate scale drawing showing the positions of a hotel and a museum.



Scale: 1 cm represents 4.5 km

(a) Find, by measuring, the bearing of the hotel from the museum.

.....<sup>o</sup>  
(1)

(b) Work out the real distance between the hotel and the museum.

..... km  
(2)