  
HIGHER: BEARINGS – This is a selection of the types of question that you need to be able to solve.

**Q1.**

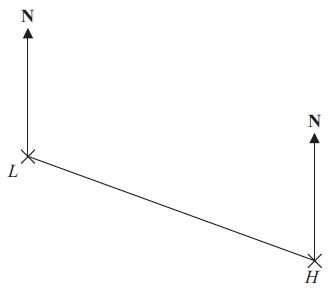
The bearing of a ship from a lighthouse is 050°

Work out the bearing of the lighthouse from the ship.

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

**Q2.**The diagram shows the position of a lighthouse *L* and a harbour *H*.



 The scale of the diagram is 1 cm represents 5 km.

(a) Work out the real distance between *L* and *H*.

. . . . . . . . . . . . . . . . . . . . . . km

**(1)**

(b) Measure the bearing of *H* from *L*.

. . . . . . . . . . . . . . . . . . . . . . °

**(1)**

A boat *B* is 20 km from *H* on a bearing of 040°.

(c) On the diagram, mark the position of boat *B* with a cross (×).  
Label it *B*.

**(2)**

**(Total for Question is 4 marks)**

**Q3.**The diagram shows the position of two churches, *A* and *B*.



Church *C* is on a bearing of 130° from church *A*.   
Church *C* is on a bearing of 245° from church *B*.

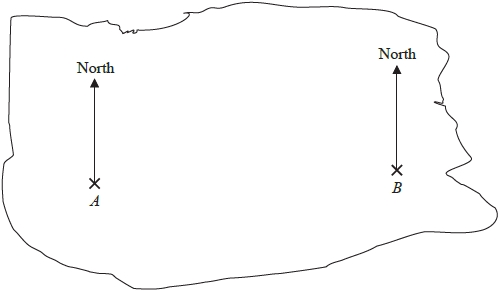
In the space above, draw an accurate diagram to show the position of church *C*.

Mark the position of church *C* with a cross ().   
Label it *C*.

**(Total for question = 3 marks)**

**Q4.**

The accurate scale drawing shows a map of an island.



*A* and *B* are points on the island.   
The real distance, in kilometres, between *A* and *B* is 56 km.

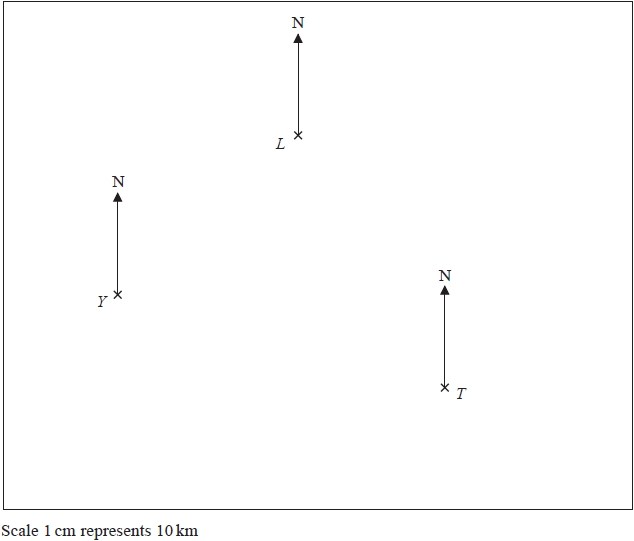
Treasure is buried at point *C* on the island.   
Point *C* is 35 km from *A* and on a bearing of 300° from *B*.

Mark the point *C* with a cross ().

**(Total for question = 5 marks)**

**Q5.**

The diagram shows the positions of a lighthouse *L*, a yacht *Y* and a tanker *T* on a map.



(a)  Measure the bearing of *L* from *Y*.

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**(1)**

The tanker, *T*, sails 80 km on a bearing of 320°.

(b)  Find the distance, in km, between the tanker and the lighthouse when the tanker is closest to the lighthouse.

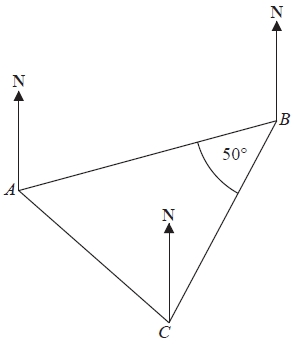
........................................................... km

**(2)**

**(Total for question = 3 marks)**

**Q6.**

The diagram shows the positions of three points, *A*, *B* and *C*, on a map.



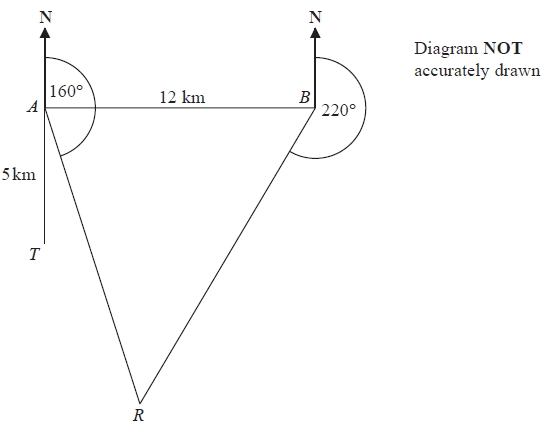
The bearing of *B* from *A* is 070°

Angle *ABC* is 50°   
*AB* = *CB*

Work out the bearing of *C* from *A*.

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**(Total for question is 3 marks)**

**Q7.**  


There is a coastguard station at point *A* and at point *B*.   
*B* is due East of *A*.   
The distance from *A* to *B* is 12 km.

There is a rowing boat at point *R*.   
*R* is on a bearing of 160° from A.   
*R* is on a bearing of 220° from B.

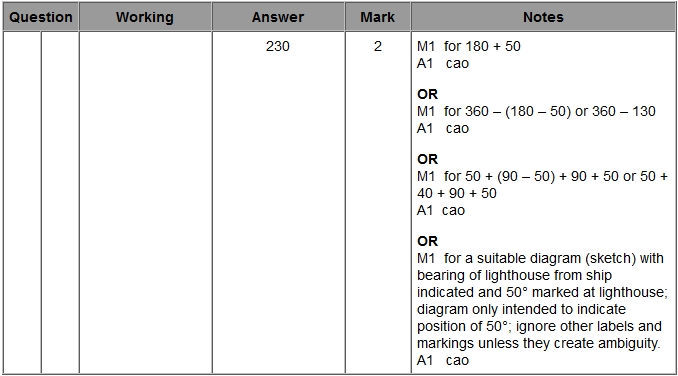
There is a speedboat at point *T*.   
*T* is 5 km due South of *A*.

Work out the shortest distance from *T* to *R*.   
Give your answer correct to 1 decimal place.   
You must show all your working.

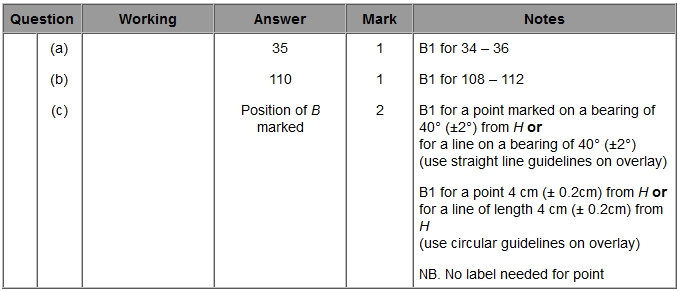
...........................................................km

**(Total for question = 5 marks)**

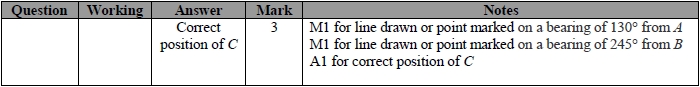
**Mark Scheme**  
Q1.



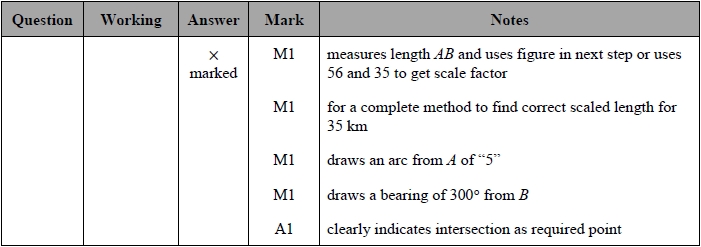
**Q2.**



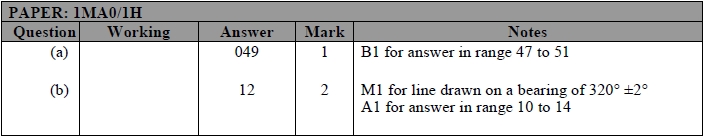
**Q3.**



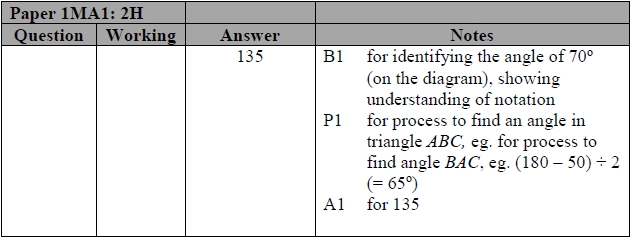
**Q4.**



**Q5.**



**Q6.**



**Q7.**