

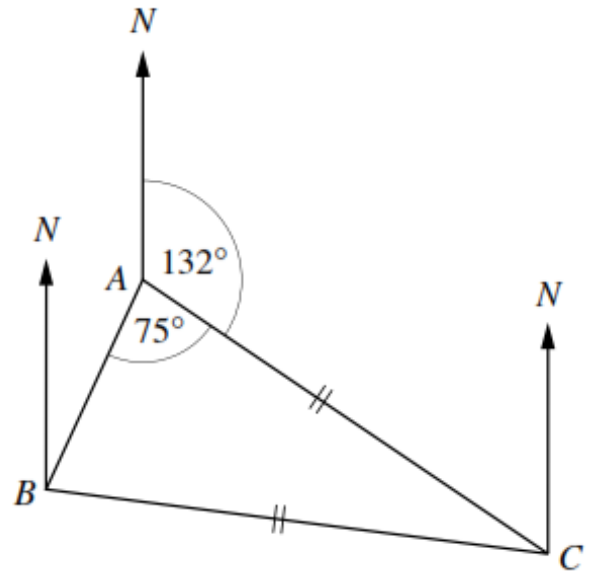
# Bearing

**Q#1** 2001 Nov p1 Q17 [Marks 1+1+1+1]

$A$ ,  $B$  and  $C$  are three towns.  
 $C$  is equidistant from  $A$  and  $B$ .  
 The bearing of  $C$  from  $A$  is  $132^\circ$  and  $\widehat{BAC} = 75^\circ$ .

Find

- (a) (i) the acute angle  $ACB$ ,  
 (ii) the reflex angle  $ACB$ ,  
 (b) the bearing of  $A$  from  $C$ ,  
 (c) the bearing of  $A$  from  $B$ .

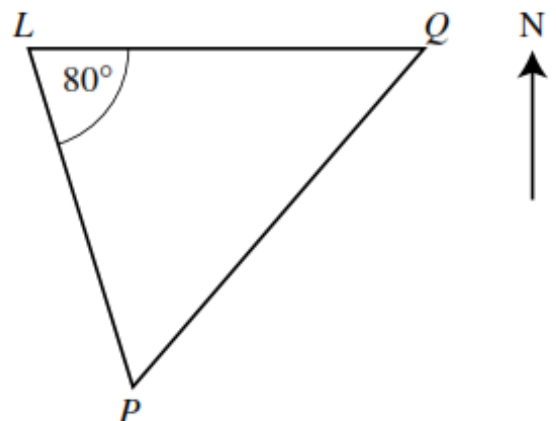


**Q#2** 2002 june p1 Q7 [Marks 1+1+1]

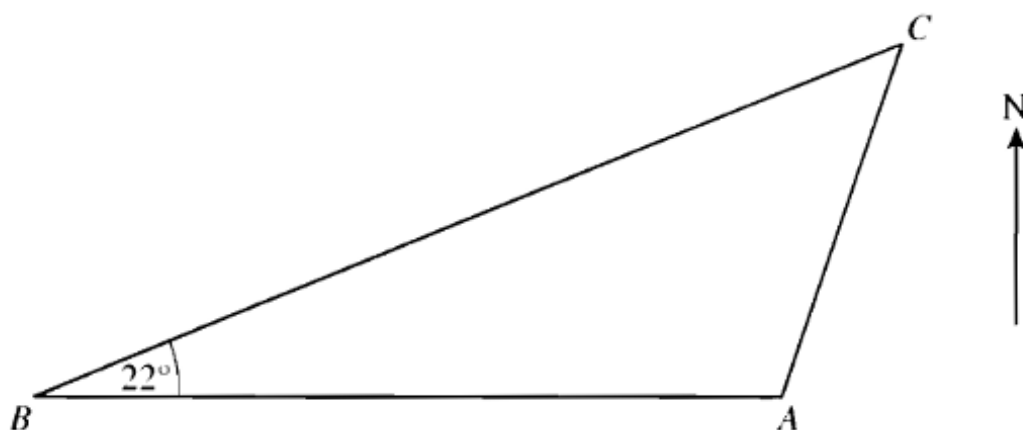
The diagram shows a lighthouse,  $L$ ,  
 and two ports  $P$  and  $Q$ .  
 $Q$  is due east of  $L$  and  $\widehat{PLQ} = 80^\circ$ .  
 $P$  and  $Q$  are each 10 km from  $L$ .

Find

- (a)  $\widehat{LQP}$ ,  
 (b) the bearing of  $Q$  from  $P$ ,  
 (c) the bearing of  $L$  from  $P$ .



**Q#3** 2004 june p1 Q15 [Marks 1+2]



$A$ ,  $B$  and  $C$  are three ships.

$B$  is due West of  $A$ .

- (a) Given that  $\hat{A}BC = 22^\circ$ , write down the bearing of  $C$  from  $B$ .
- (b) By using your protractor, find the bearing of  $A$  from  $C$ .

Answer (a) ..... [1]

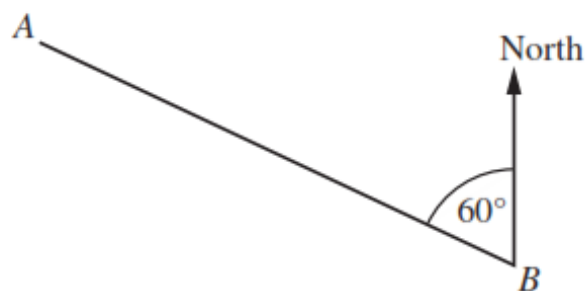
(b) ..... [2]

**Q#4** 2004 Dec p1 Q9 [Marks 1+1]

The diagram shows the positions of  $A$  and  $B$ .

Find the bearing of

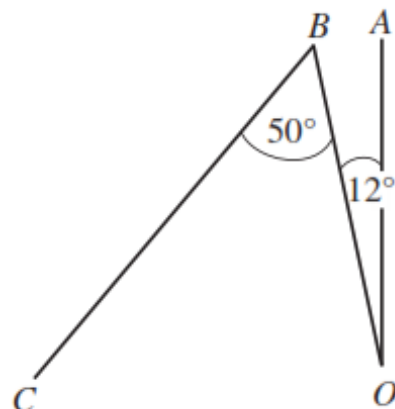
- (a)  $A$  from  $B$ ,
- (b)  $B$  from  $A$ .



**Q#5** 2005 June p1 Q4 [Marks 1+1].

$A$  is due North of  $O$ .

- (a) A ship sailed from  $O$  to  $B$ , where  $\hat{AOB} = 12^\circ$ .  
Write down the bearing of  $B$  from  $O$ .
- (b) At  $B$ , the ship turned and sailed to  $C$ , where  $\hat{OBC} = 50^\circ$ .  
Calculate the bearing of  $C$  from  $B$ .



Answer (a) .....[1]

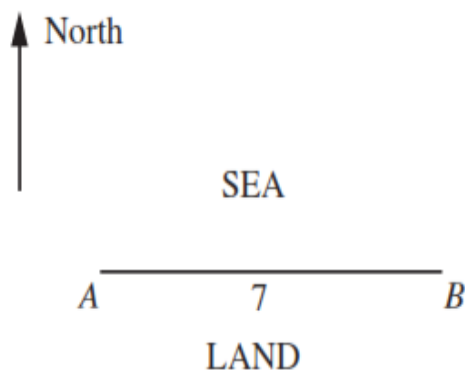
(b) ..... [1]

**Q#6** 2006 June p2 Q9 [Marks 1+3+2+2+4].

In the diagram,  $A$  and  $B$  are two points on a straight coastline.

$B$  is due east of  $A$  and  $AB = 7$  km.

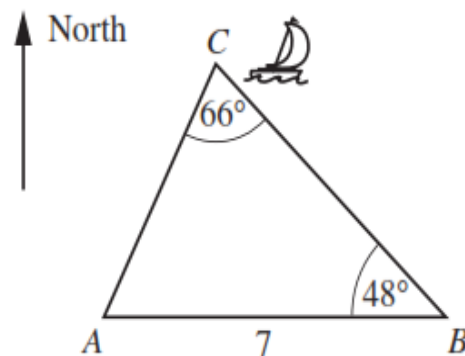
The position of a boat at different times was noted.



- (a) At 8 a.m., the boat was at  $C$ , where  $\hat{ACB} = 66^\circ$  and  $\hat{ABC} = 48^\circ$ .

Calculate

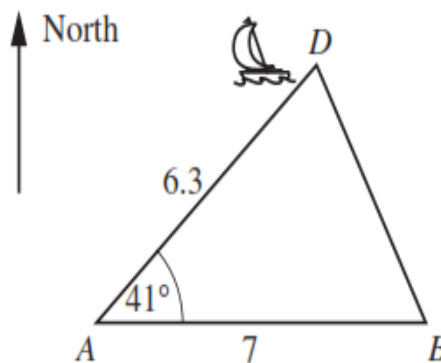
- (i) the bearing of  $B$  from  $C$ ,  
 (ii) the distance  $AC$ .



[1]

[3]

- (b) At 9 a.m., the boat was at  $D$ , where  $AD = 6.3$  km and  $\hat{DAB} = 41^\circ$ .



Calculate

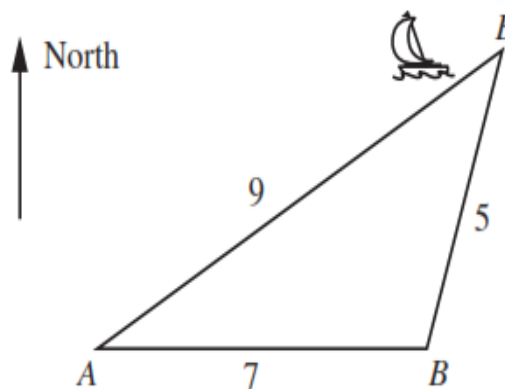
- (i) the area of triangle  $ADB$ ,

[2]

- (ii) the shortest distance from the boat to the coastline.

[2]

- (c) At 11 a.m., the boat was at  $E$ , where  $AE = 9$  km and  $BE = 5$  km.

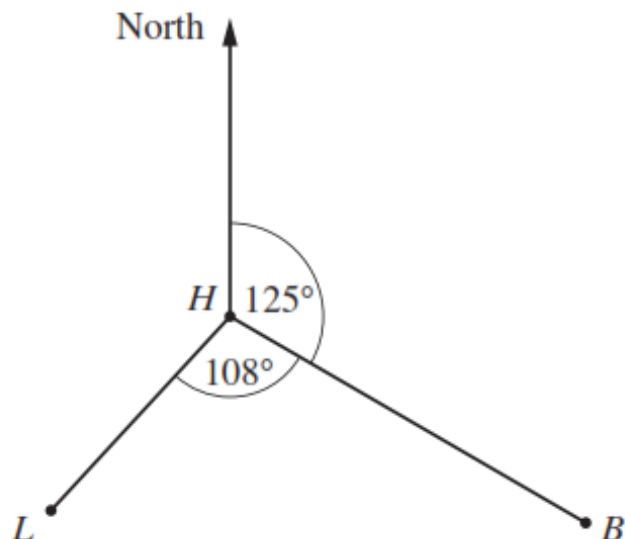


Calculate the bearing of  $E$  from  $A$ .

[4]

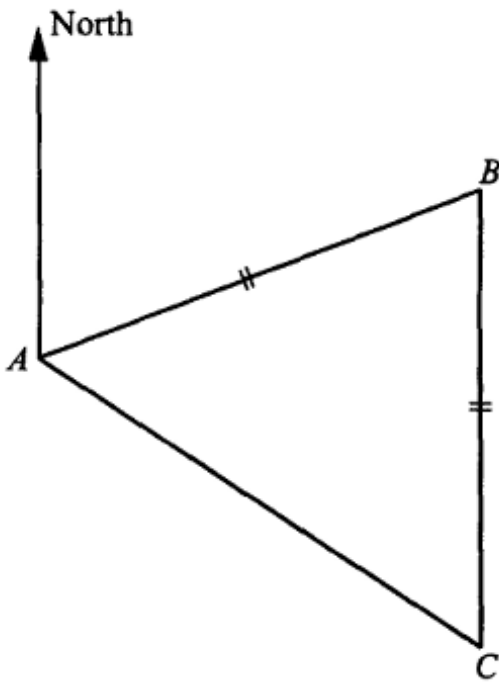
**Q#7** 2008 Nov p1 Q18 [Marks 1+1+2]

The diagram shows the positions of a harbour,  $H$ , and a lighthouse,  $L$ .  
A boat is anchored at  $B$  where  $\hat{LHB} = 108^\circ$ .



- (a) Given that the bearing of  $B$  from  $H$  is  $125^\circ$ , find the bearing of
- $L$  from  $H$ ,
  - $H$  from  $B$ .
- (b) At 7 30 a.m. the boat set sail in a straight line from  $B$  to  $H$  at an average speed of 25 km/h. Given that  $BH = 70$  km, find the time at which the boat reaches the harbour.

**Q#8** 1997 Dec p1 Q13 [Marks 1+2]



The bearing of  $B$  from  $A$  is  $072^\circ$ .

- (a) Find the bearing of  $A$  from  $B$ .
- (b)  $C$  is due South of  $B$  and  $BA = BC$ .  
Find the bearing of  $A$  from  $C$ .