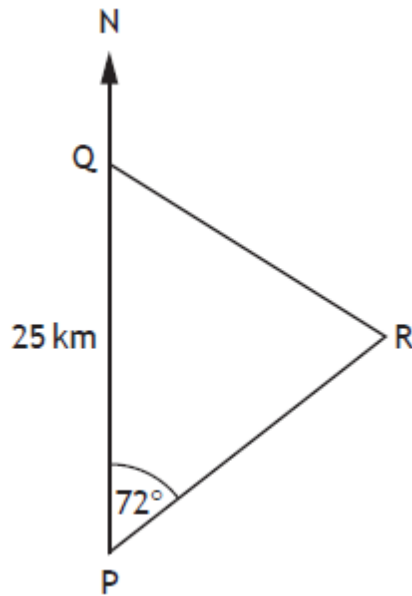


National 5 Mathematics  
Exam Questions by Topic

# **Bearings**

**2015 N5 Past Paper P2, Q13**

1. In the diagram below P, Q and R represent the positions of Portlee, Queenstown and Rushton respectively.



Portlee is 25 kilometers due south of Queenstown.

From Portlee, the bearing of Rushton is  $072^\circ$ .

From Queenstown, the bearing of Rushton is  $128^\circ$ .

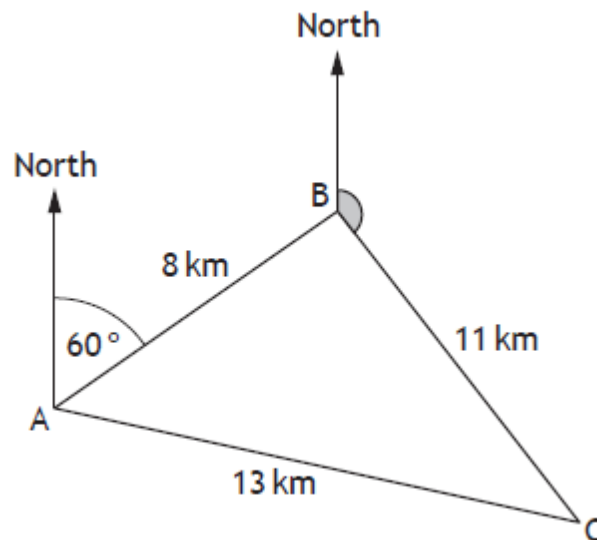
Calculate the distance between Portlee and Rushton.

**Do not use a scale drawing.**

(4 marks)

**2014 N5 Past Paper P2, Q10**

2. In a race, boats sail round three buoys represented by A, B and C in the diagram below.



B is 8 kilometers from A on a bearing of  $060^\circ$ .

C is 11 kilometers from B.

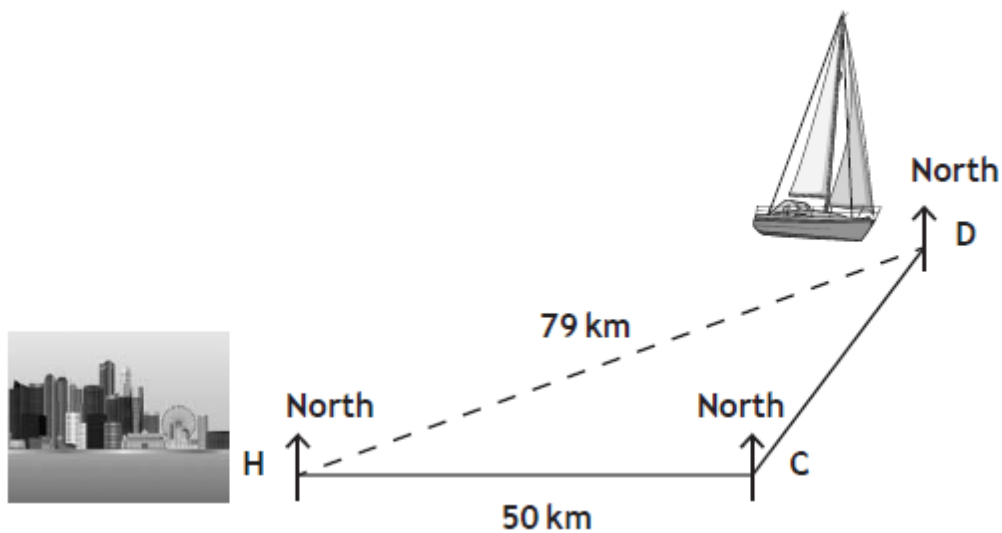
A is 13 kilometers from C.

(a) Calculate the size of angle ABC. (3 marks)

(b) Hence find the size of the shaded angle. (2 marks)

**2013 Specimen P2, Q13**

3. A yacht sails from a harbor H to a point C, then to a point D as shown below.



C is 50 kilometers due east of H.

D is on a bearing of  $040^\circ$  from C and is 79 kilometers from H.

(a) Calculate the size of angle CDH (4 marks)

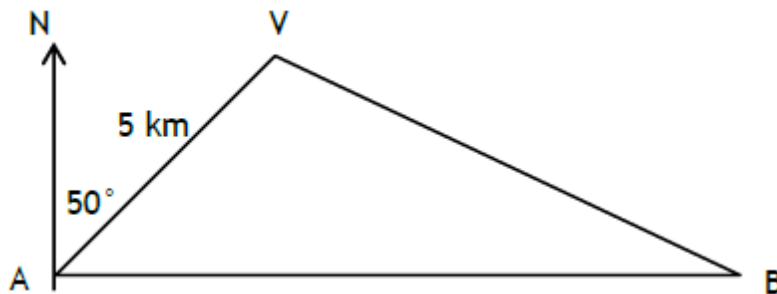
(b) Hence, calculate the bearing on which the yacht must sail to return directly to the harbour. (4 marks)

**2013 Practice Paper E, P2, Q8**

4. David walks on a bearing of  $050^\circ$  from hostel A to viewpoint V, 5 kilometres away.

Hostel B is due east of hostel A.

Susie walks on a bearing of  $294^\circ$  from hostel B to the same viewpoint.

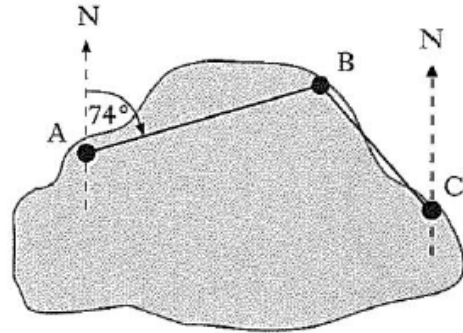


Calculate the length AB, the distance between the two hostels. (5 marks)

**Practice Paper F, P2, Q7**

5. There are three mooring points on Lake Sorling.

- From A, the bearing of B is  $074^\circ$
- From C, the bearing of B is  $310^\circ$



(a) Calculate the size of angle ABC.

(2 marks)

B is 230 metres from A and 110 metres from C.

(b) Calculate the direct distance from A to C.

Give your answers to 3 significant figures.

(4 marks)