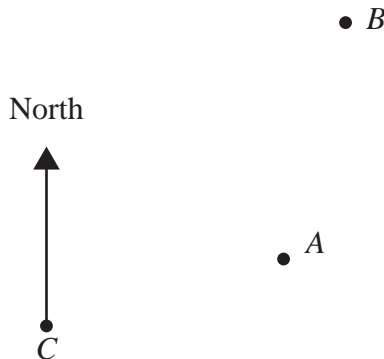


3.



**Figure 1**

Figure 1 is a sketch showing the position of three phone masts,  $A$ ,  $B$  and  $C$ .

The masts are identical and their bases are assumed to lie in the same horizontal plane.

From mast  $C$

- mast  $A$  is 8.2 km away on a bearing of  $072^\circ$
- mast  $B$  is 15.6 km away on a bearing of  $039^\circ$

(a) Find the distance between masts  $A$  and  $B$ , giving your answer in km to one decimal place.

**(3)**

An engineer needs to travel from mast  $A$  to mast  $B$ .

(b) Give a reason why the answer to part (a) is unlikely to be an accurate value for the distance the engineer travels.

**(1)**