



- SQ ME7** Abbey walks 2 km due west from home to a coffee shop. She then walks on a bearing of 148° to school, which is due south of her home. How far south, to the nearest 0.1 km, is Abbey from home?
- A. 1.1 km B. 1.2 km C. 3.2 km D. 3.8 km

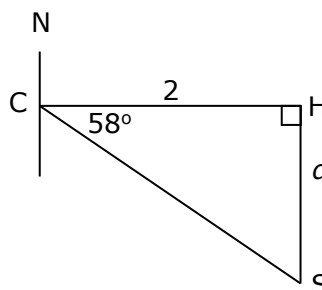
C

$$148 - 90 = 58$$

$$\frac{d}{2} = \tan 58^\circ$$

$$\begin{aligned} d &= 2 \times \tan 58^\circ \\ &= 3.200669058\dots \\ &= 3.2 \text{ (1 dec pl)} \end{aligned}$$

The distance is 3.2 km.



* These solutions have been provided by [projectmaths](http://projectmaths.com.au) and are not supplied or endorsed by NESA.