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- 19 MS2** **12** An owl is 7 metres above ground level, in a tree. The owl sees a mouse on the ground **1**  
at an angle of depression of  $32^\circ$ . How far must the owl fly in a straight line to catch  
the mouse, assuming the mouse does not move?  
A. 3.7 m                      B. 5.9 m                      C. 8.3 m                      D. 13.2 m

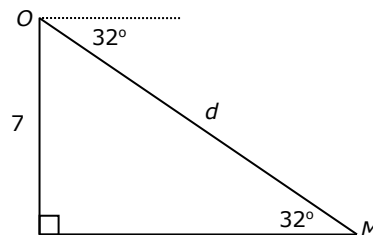
**D**

$$\frac{7}{d} = \sin 32^\circ$$

$$d = \frac{7}{\sin 32^\circ}$$

$$= 13.2095594\dots$$

$$= 13.2 \text{ (1 dec pl)} \quad \therefore \text{ the owl must fly 13.2 m.}$$



State Mean:  
**0.36/1**

\* These solutions have been provided by [projectmaths](#) and are not supplied or endorsed by NESA.