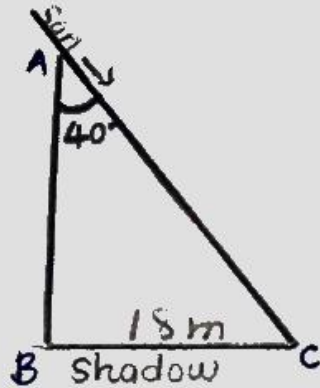


Assignment

1. When the sun is at an elevation of 40° , the length of shadow of tree is 18 m. What is the height of tree? ($\tan 40^\circ = 0.84$)

Ans:-



$$\tan 40^\circ = \frac{\text{opposite side}}{\text{adjacent side}}$$

$$\tan 40^\circ = \frac{BC}{AB}$$

$$\tan 40^\circ = \frac{18}{h} \quad (h = AB)$$

$$0.84 = \frac{18}{h}$$

$$0.84 \times h = 18$$

$$h = \frac{18}{0.84} = \underline{\underline{21.42 \text{ m.}}}$$

$$\text{height of tree} = \underline{\underline{21.42 \text{ m.}}}$$