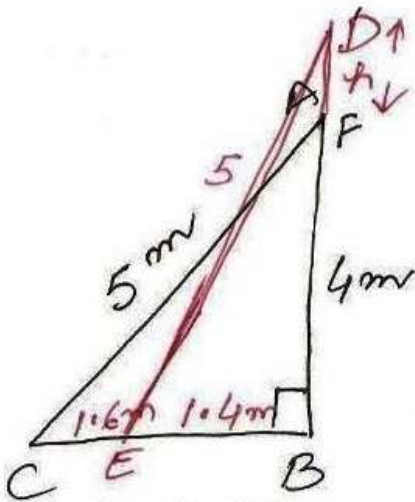


EX 6.4 NCERT Exemplar Solutions by Dev Anoop (Bathinda)

(5)



In rt ΔABC

$$BC^2 = AC^2 - AB^2 \text{ (Pyth. th.)}$$

$$= 5^2 - 4^2$$

$$= 25 - 16$$

$$= 9$$

$$BC = \sqrt{9} \text{ NCERT Exemplar Solutions by Dev Anoop (Bathinda)}$$

$$= 3 \text{ m}$$

$$BE = 3 - 1.6$$

$$= 1.4 \text{ m}$$

$$\text{In rt } \Delta DBE, DE^2 = DB^2 + BE^2 \text{ (Pyth. th.)}$$

$$5^2 = BD^2 + 1.4^2 \text{ (Pythagoras theorem)}$$

$$\Rightarrow BD^2 = 25 - 1.96$$

$$= 23.04$$

$$\Rightarrow BD = \sqrt{23.04}$$

$$= 4.8 \text{ m}$$

$$DF = BD - BF$$

$$= 4.8 - 4$$

$$= 0.8$$

$$\therefore \text{ reqd distance} = 0.8 \text{ m}$$