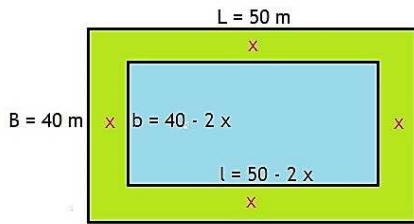


7



let width = x m

$$LB - lb = 1184$$

$$50 \times 40 - (50 - 2x)(40 - 2x) = 1184$$

$$\Rightarrow 2000 - (2000 - 100x - 80x + 4x^2) = 1184$$

$$\Rightarrow \cancel{2000} - \cancel{2000} + 100x + 80x - 4x^2 = 1184$$

NCERT Solutions by Dev Anoop Bathinda

$$\Rightarrow 180x - 4x^2 = 1184$$

$$\Rightarrow 4x^2 - 180x + 1184 = 0$$

$$\Rightarrow x^2 - 45x + 296 = 0$$

$$\Rightarrow (x - 37)(x - 8) = 0$$

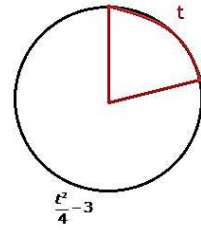
$$\Rightarrow x = 37, x = 8$$

$$\therefore x = 37 \text{ rej}$$

$$L = 34 \text{ m}$$

$$B = 24 \text{ m}$$

8



acc to problem

$$t + \frac{t^2}{4} - 3 = 60$$

$$(\times 4) 4t + t^2 - 12 = 240$$

$$\Rightarrow t^2 + 4t - 252 = 0$$

$$\Rightarrow t^2 + 18t - 14t - 252 = 0$$

$$\Rightarrow t(t + 18) - 14(t + 18) = 0$$

$$\Rightarrow (t + 18)(t - 14) = 0$$

$$\Rightarrow t + 18 = 0, t - 14 = 0$$

$$\Rightarrow t = -18, t = 14$$

$$\therefore t = 14$$