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Exercise 7A

Question 1:

Here, b = 24 cm and h = 14.5 cm

$$\text{Area of triangle} = \left(\frac{1}{2} \times \text{base} \times \text{height}\right) \text{sq units}$$

$$= \left(\frac{1}{2} \times 24 \times 14.5\right) \text{cm}^2$$

$$= 174 \text{ cm}^2$$

Question 2:

Let height = x and base = 3x

$$\text{Area of triangle} = \left(\frac{1}{2} \times \text{base} \times \text{height}\right) \text{sq units}$$

$$\therefore \text{Area of triangle} = \frac{1}{2} \times x \times 3x$$

$$= \frac{3}{2}x^2$$

We know that, 1 hectare = 10000 sq metre

Rate of sowing the field per hectare = Rs.58

Total cost of sowing the triangular field = Rs.783

$$\Rightarrow \quad \text{Total cost} = \text{Area of the triangular field} \times \text{Rs. } 58$$

$$\Rightarrow \quad \frac{3}{2}x^2 \times \frac{58}{10000} = 783$$

$$\Rightarrow \quad x^2 = \frac{783}{58} \times \frac{2}{3} \times 10000 \text{ sq metre}$$

$$\Rightarrow \quad x^2 = 90000 \text{ sq metre}$$

$$\Rightarrow \quad x = 300\,\text{m}$$

Hence, height = 300 m and base = 900 m.

********** END **********