

⑦ area of trapezium = 180 cm^2

$$\frac{1}{2} (b_1 + b_2) h = 180$$

$$\frac{1}{2} (x + x + 6) \times 9 = 180$$

$$\Rightarrow \frac{2x + 6}{2} = 20$$

$$\Rightarrow 2x + 6 = 40$$

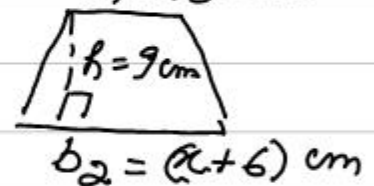
$$\Rightarrow 2x = 40 - 6$$

$$\Rightarrow x = \frac{34}{2} = 17$$

$$\therefore b_1 = 17 \text{ cm}$$

$$b_2 = 7 + 6 = 23 \text{ cm}$$

let $b_1 = x \text{ cm}$



⑧ area of field = 9450 m^2

$$\frac{1}{2} (b_1 + b_2) h = 9450$$

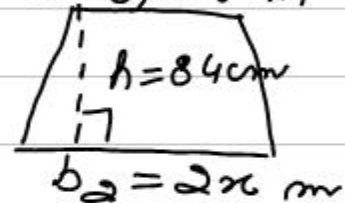
$$\frac{1}{2} (x + 2x) \times 84 = 9450$$

$$\Rightarrow 3x \times 42 = 9450$$

$$\Rightarrow x = \frac{9450}{42} = 225$$

$$\Rightarrow x = 75 \quad b_1 = 75 \text{ m}, \quad b_2 = 150 \text{ m}$$

let $b_1 = x \text{ m}$



⑨ Perimeter of trap. = 130 m

$$AB + BC + CD + DA = 130$$

$$AB + 54 + 19 + 42 = 130$$

$$\Rightarrow AB = 130 - 115 = 15 \text{ m}$$

$$\text{area of trap.} = \frac{1}{2} (b_1 + b_2) h = \frac{1}{2} (54 + 42) 19$$

$$= \frac{1}{2} \times 96 \times 19$$

$$= 912 \text{ m}^2$$

