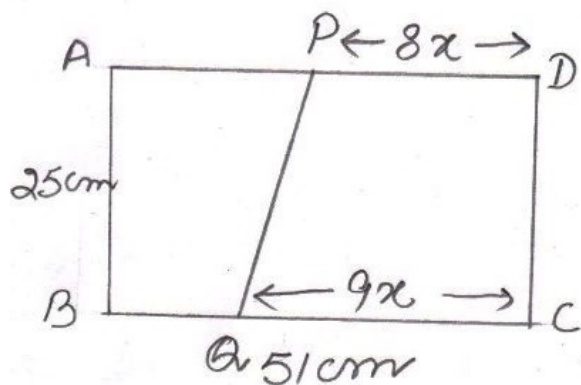


Heron's Formula Ex 12.4

NCERT Exemplar Solutions by Dev Anoop (Bathinda)



⑦

area of trapezium PQCD = $\frac{5}{6}$ ar (rect ABCD)

$$\frac{1}{2} (PD + QC) \times DC = \frac{5}{6} CD \times BC$$

$$\frac{1}{2} (8x + 9x) = \frac{5}{6} \times 51$$

$$\frac{1}{2} \times 17x = \frac{5}{6} \times 51$$

$$\Rightarrow x = \frac{5}{6} \times 51 \times \frac{2}{17}$$

$$\Rightarrow x = 5$$

$$\therefore PD = 8 \times 5 \\ = 40 \text{ cm}$$

$$QC = 9 \times 5 \\ = 45 \text{ cm}$$