

Heron's Formula - Ex 12.1

NCERT Exemplar Solutions by Dev Anoop (Bathinda)

④ area of equilateral $\Delta = \frac{\sqrt{3}}{4} \times s^2$

$$= \frac{\sqrt{3}}{4} \times \cancel{2\sqrt{3}} \times \cancel{2\sqrt{3}}$$
$$= 3\sqrt{3} \text{ cm}^2$$
$$= 3 \times 1.732$$
$$= 5.196 \text{ cm}^2$$

(A)

⑤ area of equilateral $\Delta = 9\sqrt{3} \text{ cm}^2$

$$\frac{\sqrt{3}}{4} s^2 = 9\sqrt{3}$$
$$\Rightarrow s = \sqrt{9 \times 4}$$
$$= 3 \times 2$$
$$= 6 \text{ cm}$$

(D)

⑥ area of equilateral $\Delta = 16\sqrt{3} \text{ cm}^2$

$$\frac{\sqrt{3}}{4} s^2 = 16\sqrt{3}$$
$$\Rightarrow s = \sqrt{16 \times 4}$$
$$= 4 \times 2$$
$$= 8 \text{ cm}$$

Perimeter of equilateral Δ

$$= 3s$$
$$= 3 \times 8$$
$$= 24 \text{ cm}$$

(B)

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