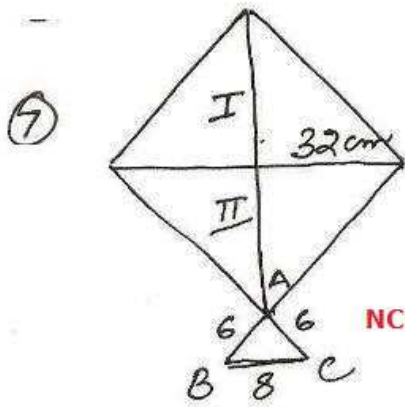


ex 12.2 herons formula ix



$$\text{area of square} = \frac{1}{2} d^2$$

$$= \frac{1}{2} \times 32 \times 32$$

$$= 512 \text{ cm}^2$$

area of paper of colour I

= area of paper of colour II

$$= 512 \text{ cm}^2$$

ΔABC

$$s = \frac{a+b+c}{2}$$

$$= \frac{6+6+8}{2}$$

$$= 10 \text{ cm}$$

area of paper of colour III

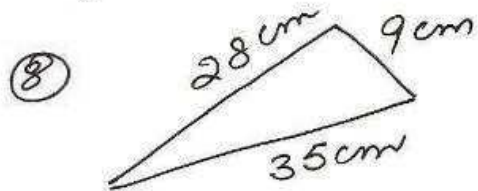
$$= \sqrt{10(10-6)(10-6)(10-8)}$$

$$= \sqrt{10 \times 4 \times 4 \times 2}$$

$$= 4 \sqrt{2 \times 5 \times 2}$$

$$= 4 \times 2 \sqrt{5}$$

$$= 8 \sqrt{5} \text{ cm}^2$$



$$s = \frac{a+b+c}{2}$$

$$= \frac{9+28+35}{2}$$

$$= \frac{72}{2}$$

$$= 36 \text{ cm}$$

area of Δ

$$= \sqrt{s(s-a)(s-b)(s-c)}$$

$$= \sqrt{36(36-9)(36-28)(36-35)}$$

$$= \sqrt{36 \times 27 \times 8 \times 1}$$

$$= \sqrt{6 \times 6 \times 3 \times 3 \times 3 \times 2 \times 2 \times 2}$$

$$= 6 \times 3 \times 2 \sqrt{3 \times 2}$$

$$= 36\sqrt{6} \text{ cm}^2$$

area of design

$$= 16 \times 36\sqrt{6}$$

$$= 576\sqrt{6} \text{ cm}^2$$

$$= 576 \times 2.44 \text{ cm}^2$$

cost of polishing

$$= \frac{50}{100} \times \frac{288}{2} \times 576 \times 2.45$$

$$= \text{Rs } 705.60$$