

Note

$$r = \frac{A}{S}$$

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

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

a, b, c = Sides of triangle

Sides of a triangle are 13 cm, 14 cm and 15 cm.
Find the area of triangle.

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Ans :-

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

$$= \frac{13+14+15}{2} = \frac{42}{2} = \underline{\underline{21}}$$

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

$$= \sqrt{21(21-13)(21-14)(21-15)}$$

$$= \sqrt{21 \times 8 \times 7 \times 6}$$

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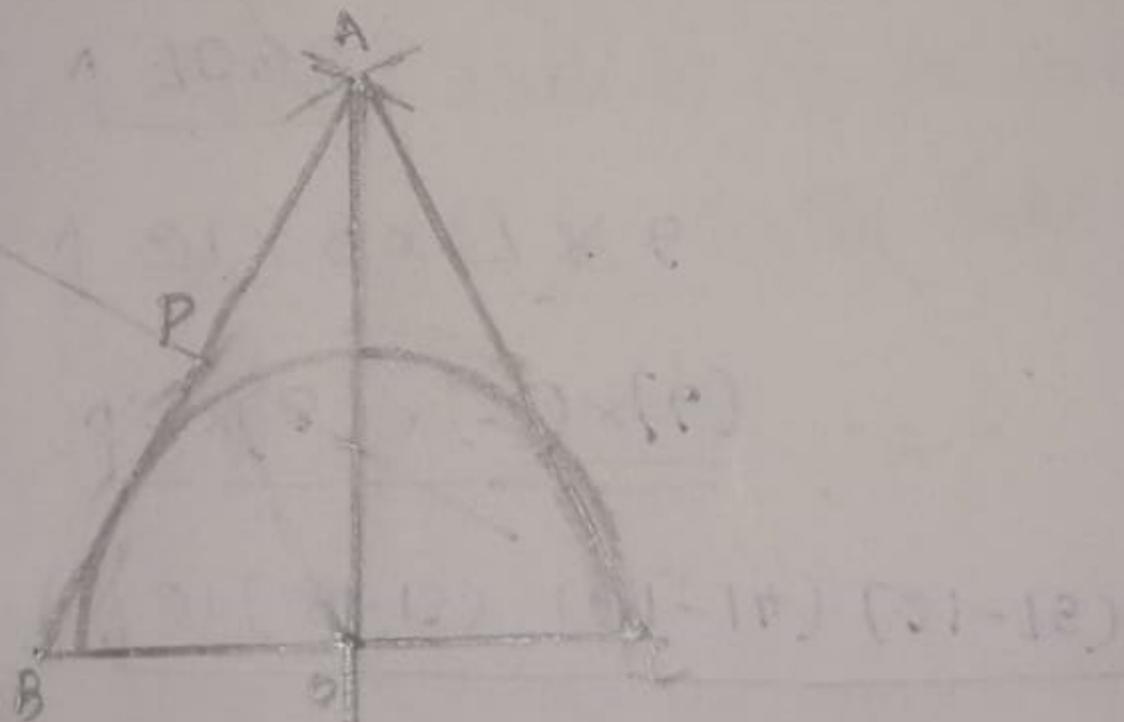
$$= \sqrt{7056}$$

$$= \underline{\underline{84 \text{ cm}^2}}$$

$$\left(\underline{3 \times 7} \right) \times \left(\underline{4 \times 2} \right) \times \underline{7} \times \left(\underline{3 \times 2} \right)$$

$$\left(\underline{7 \times 3 \times 2} \right) \times 2$$

Draw an equilateral triangle and a semi circle through its two



$$= 12 + 12 + 12 = 36$$