

Heron's Formula - Ex 12.2
NCERT Exemplar Solutions by Dev Anoop (Bathinda)

1. area of $\Delta = \frac{1}{2} \times \text{base} \times \text{corresponding al.}$
 $= \frac{1}{2} \times 4 \times \cancel{6}^3$
 $= 12 \text{ cm}^2$

but given area = 24 cm^2

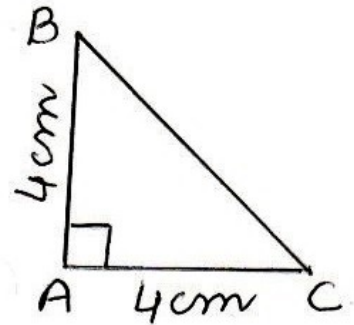
\therefore False

2. area $\Delta ABC = \frac{1}{2} \times AB \times AC$

$$= \frac{1}{2} \times 4 \times \cancel{4}^2$$

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

\therefore True



3. base = 5 cm
let each equal side = x cm

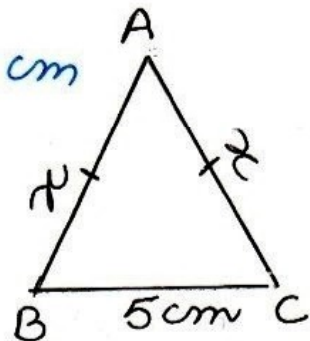
Perimeter of $\Delta = 11 \text{ cm}$

$$x + x + 5 = 11$$

$$\Rightarrow 2x = 11 - 5$$

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

$$\Rightarrow x = 3$$



area of isosceles $\Delta = \frac{b}{4} \sqrt{4a^2 - b^2}$
 $= \frac{5}{4} \sqrt{4 \times 3^2 - 5^2}$
 $= \frac{5}{4} \sqrt{11 \text{ cm}^2}$
True