

Ans 3) $CSA = 308 \text{ cm}^2$

Slant Height (l) = 14 cm

i) To find Radius

$$CSA = \pi r l$$

$$308 = \pi r l$$

$$\pi r l = 308$$

$$\frac{22 \times r \times 14}{7} = 308$$

$$r = \frac{308}{22 \times 2} = \frac{154}{22}$$

$$\boxed{r = 7 \text{ cm}}$$

ii) TSA of cone = $\pi r [r + l]$

$$= \frac{22}{7} \times 7 [7 + 14]$$

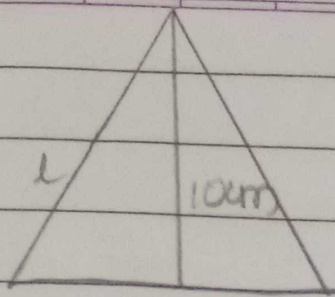
$$= \frac{22 \times 7 \times 21}{7}$$

$$= 22 \times 21$$

$$= 462 \text{ cm}^2$$

4) A conical tent is 10 m high and the radius of its base is 24 m . Find slant height of the tent.

ii) Cost of the canvas required to make the tent, if the cost of 1 m^2 canvas is 270



in a cone $r = 24m$

$$l^2 = r^2 + h^2$$

$$l^2 = (24)^2 + (10)^2$$

$$l^2 = 576 + 100$$

$$l^2 = 676$$

$$l = \sqrt{676}$$

$$l = 26m$$

ii) CSA of the tent $= \pi r l$

$$= \frac{22}{7} \times 24 \times 26$$

$$= \frac{13728}{7} m^2 = 1961.14 m^2$$

Cost of $1m^2$ is ₹70

$$\text{Cost of } \frac{13728}{7} \text{ is } = \frac{70 \times 13728}{7}$$

$$= ₹137280$$