

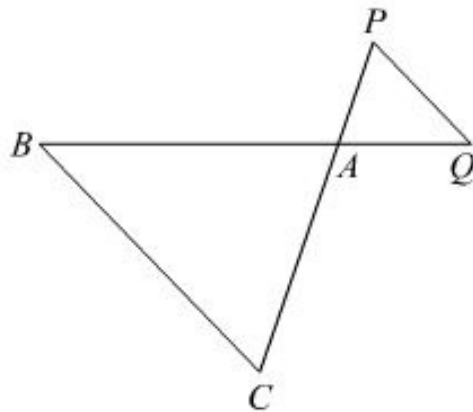


Triangles Ex 4.5 Q1

Answer :

It is given that $\Delta ACB \sim \Delta APQ$.

$BC = 8\text{cm}$, $PQ = 4\text{cm}$, $BA = 6.5\text{cm}$ and $AP = 2.8\text{cm}$.



We have to find CA and AQ .

Since $\Delta ACB \sim \Delta APQ$

$$\Rightarrow \frac{BA}{AQ} = \frac{CA}{AP} = \frac{BC}{PQ}$$

So

$$\begin{aligned}\frac{6.5\text{cm}}{AQ} &= \frac{8\text{cm}}{4\text{cm}} \\ AQ &= \frac{6.5\text{cm} \times 4\text{cm}}{8\text{cm}} \\ &= 3.25\text{cm}\end{aligned}$$

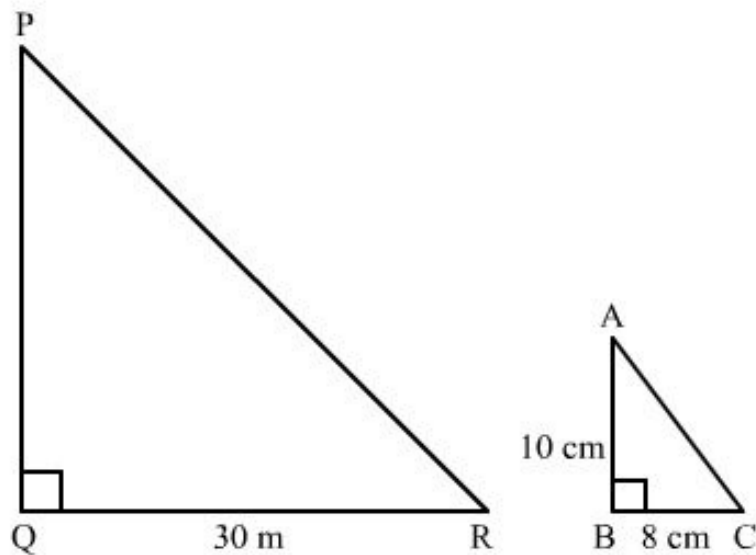
Similarly

$$\begin{aligned}\frac{CA}{AP} &= \frac{BC}{PQ} \\ \frac{CA}{2.8\text{cm}} &= \frac{8\text{cm}}{4\text{cm}} \\ CA &= 2.8\text{cm} \times 2 \\ &= 5.6\text{cm}\end{aligned}$$

Hence, $CA = 5.6\text{cm}$ and $AQ = 3.25\text{cm}$

Triangles Ex 4.5 Q2

Answer :



We have to find the height of PQ .

Now,

$\triangle ABC \sim \triangle PQR$ (AA Similarity)

$$\frac{AB}{BC} = \frac{PQ}{QR}$$

$$\frac{10\text{cm}}{8\text{cm}} = \frac{PQ}{30\text{m}}$$

$$PQ = \frac{30\text{m} \times 10\text{cm}}{8\text{cm}}$$

$$PQ = \frac{3000\text{cm} \times 10\text{cm}}{8\text{cm}}$$

$$PQ = \frac{30000\text{cm}}{8\text{cm}}$$

$$= \frac{3750}{100}$$

$$= 37.5\text{m}$$

Hence $\boxed{PQ = 37.5\text{m}}$

*****END*****