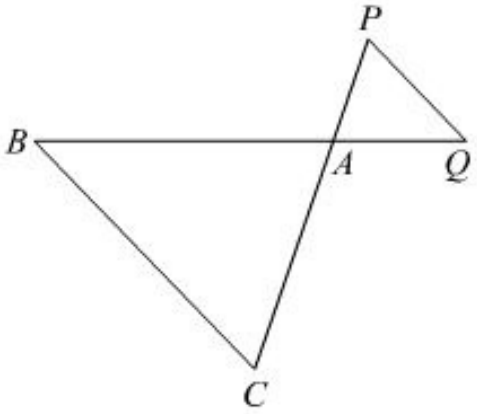
Triangles Ex 4.5 Q1

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

$$\frac{6.5\text{cm}}{AQ} = \frac{8\text{cm}}{4\text{cm}}$$

$$AQ = \frac{6.5\text{cm} \times 4\text{cm}}{8\text{cm}}$$

$$= 3.25\text{cm}$$

Similarly

$$\frac{CA}{AP} = \frac{BC}{PQ}$$

$$\frac{CA}{2.8\text{cm}} = \frac{8\text{cm}}{4\text{cm}}$$

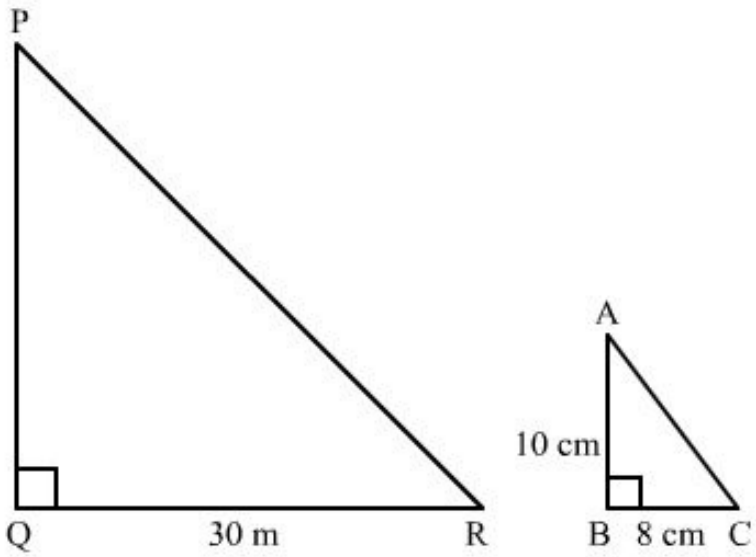
$$CA = 2.8\text{cm} \times 2\text{cm}$$

$$= 5.6\text{cm}$$

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

Triangles Ex 4.5 Q2

Answer :



We have to find the height of PQ.

Now,

$\Delta ABC \sim \Delta PQR$ (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 **********