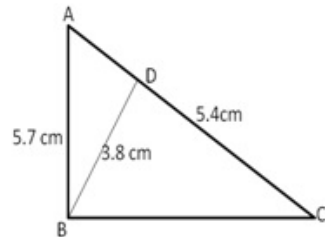




Exercise 4B

Question 7:



Given that $AB = 5.7$ cm, $BD = 3.8$ cm and $CD = 5.4$ cm

In $\triangle CBA$ and $\triangle CDB$

$$\angle CBA = \angle CDB = 90^\circ$$

$$\angle C = \angle C \text{ (Common)}$$

Therefore, $\triangle CBA \sim \triangle CDB$ (by AA similarities)

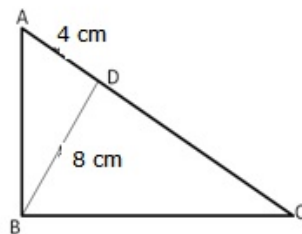
$$\Rightarrow \frac{BC}{CD} = \frac{BA}{BD}$$

$$\Rightarrow \frac{BC}{5.4} = \frac{5.7}{3.8} \Rightarrow BC = \frac{5.7 \times 5.4}{3.8}$$

$$\therefore BC = 8.1 \text{ cm}$$

Hence, $BC = 8.1$ cm

Question 8:



Given that $BD = 8$ cm, $AD = 4$ cm

In $\triangle DBA$ and $\triangle DCB$, we have

$$\angle BDA = \angle CDB = 90^\circ$$

$$\angle DBA = \angle DCB$$

$$[\text{each} = 90^\circ - \angle A]$$

$\triangle DBA \sim \triangle DCB$ (by AAA similarity)

$$\therefore \frac{BD}{CD} = \frac{AD}{BD}$$

$$\Rightarrow CD = \frac{BD^2}{AD} \Rightarrow CD = \frac{(8)^2}{4} = \frac{64}{4} = 16 \text{ cm}$$

Hence, $CD = 16$ cm

***** END *****