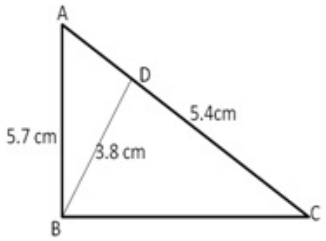
Exercise 4B

Question 7:



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

In ΔCBA and ΔCDB

$\angle CBA = \angle CDB = 90^0$

$\angle C = \angle C$ (Common)

Therefore, ΔCBA ~ ΔCDB (by AA similarities)

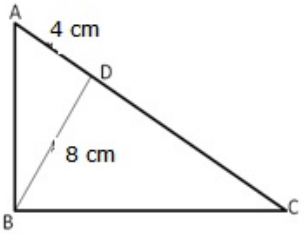
$\Rightarrow \frac{BC}{CD} = \frac{BA}{BD}$

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

$\therefore$ BC = 8.1 cm

Hence, BC = 8.1 cm

Question 8:



Given that BD = 8 cm, AD = 4 cm

In ΔDBA and ΔDCB, we have

$\angle BDA = \angle CDB = 90^0$

$\angle DBA = \angle DCB$ [each = $90^0 - \angle A$]

ΔDBA ~ ΔDCB (by AAA similarity)

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

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

Hence, CD = 16 cm

********** END **********