Exercise 7.3

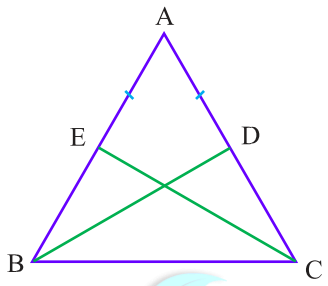
Question 1:

ABC is an isosceles triangle with AB = AC and BD and CE are its two medians. Show that BD = CE.

Answer 1:

Given: In ΔABC, AB = AC and BD and CE are its medians.

To Prove: BD = CE.



Proof: ΔABC, AB = AC [∵ Given]

⟹ ½ AB = ½ AC

⟹ AE = AD [∵ BD and CE are medians]

Now, in ΔADB & ΔAEC

AD = AE [∵ Proved above]

∠A = ∠A [∵ Common]

AB = AC [∵ Given]

ΔADB ≅ ΔAEC [∵ SAS rule]

Therefore, BD = CE [∵ CPCT]

Hence Proved.