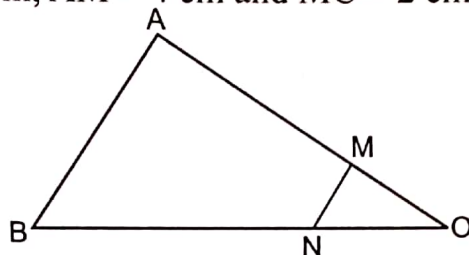## I. Very Short Answer Type Questions

1. In figure, MN ∥ AB, BC = 7.5 cm, AM = 4 cm and MC = 2 cm. Find the length BN.

2, If ΔABC ∼ ΔRPQ, AB = 3 cm, BC = 5 cm, AC = 6 cm, RP = 6 cm and PQ = 10 cm, then find QR.

3. In ΔDEW, AB ∥ EW. If AD = 4 cm, DE = 12 cm and DW = 24 cm, then find the value of DB.
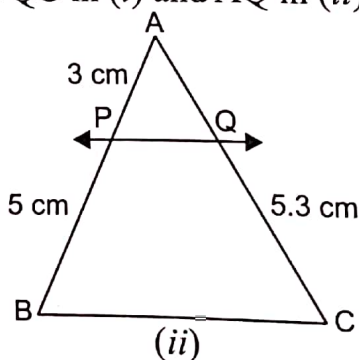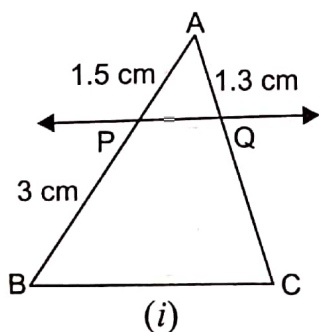
II. Short Answer Type Questions

4. M and N are points on the sides PQ and PR respectively of the ΔPQR. For each of the following cases, state whether MN ∥ QR.
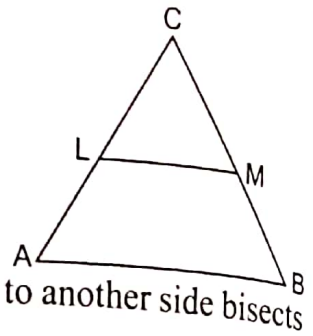   (i) PM = 4 cm; QM = 4.5 cm; PN = 4 cm; NR = 4.5 cm.
    (ii) PQ = 1.28 cm, PR = 2.56 cm, PM = 0.16 cm; PN = 0.32 cm.

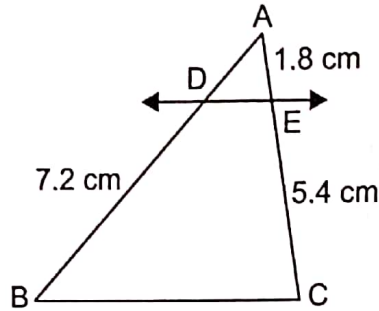5. If in Fig. (i) and (ii) given below, PQ ∥ BC, find QC in (i) and AQ in (ii).

(i)

(ii)

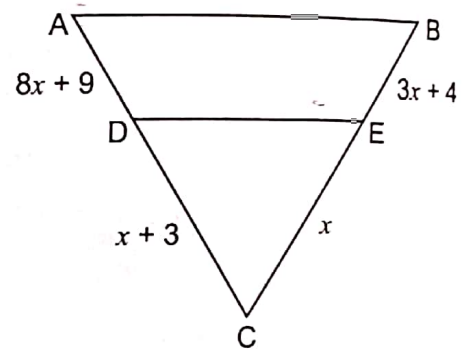6. In the given figure, LM ∥ AB. If AL = $x - 3$, AC = $2x$, BM = $x - 2$ and BC = $2x + 3$, find x.

7. Prove that the line drawn from the mid-point of one side of a triangle parallel to another side bisects the third side.

8. In the given figure, DE ∥ BC. Find AD.

9. What value(s) of x will make DE ∥ AB in the given figure?

10. In ΔABC, D and E are points on the sides AB and AC respectively, such that DE ∥ BC. If AD = x, DB = $x - 2$, AE = $x + 2$ and EC = $x - 1$, find the value of x.

11. In the figure, D and E are points on AB and AC respectively such that DE ∥ BC. If AD = $\frac{1}{3}$ BD and AE = 4.5 cm, find AC.

12. R and S are points on the sides DE and EF respectively of a ΔDEF such that ER = 5 cm, RD = 2.5 cm, SE = 1.5 cm and FS = 3.5 cm. Find whether RS ∥ DF or not.

III. Short Answer Type Questions-II

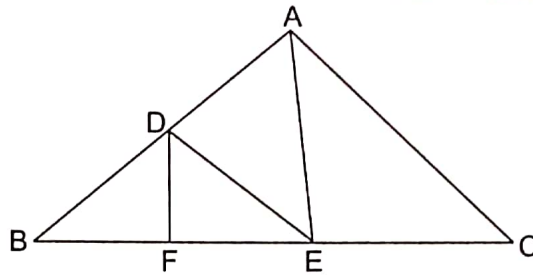13. In the given figure, prove that AD = BE if ∠A = ∠B and DE ∥ AB.
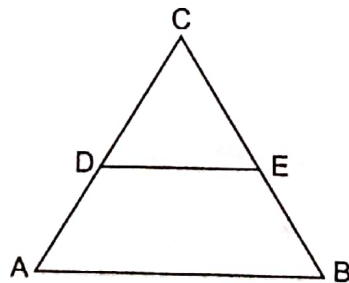
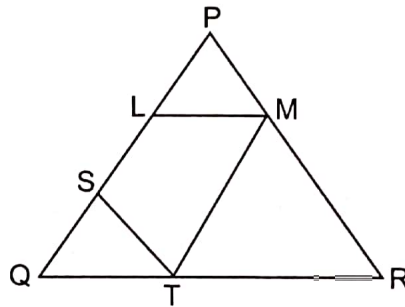14. In the given figure, if LM ∥ CB and LN ∥ CD, prove that $\dfrac{AM}{AB} = \dfrac{AN}{AD}$.
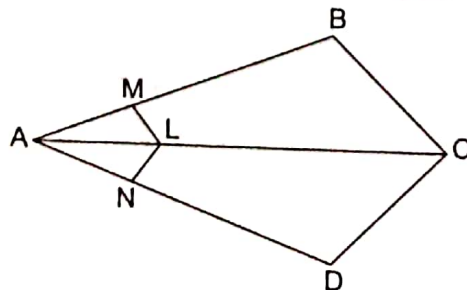
15. In the given figure, DE ∥ AC and DF ∥ AE. Prove that $\dfrac{BF}{FE} = \dfrac{BE}{EC}$.

IV. Long Answer Type Questions

16. From the side PQ of ΔPQR, cut off segment PL = QS. Draw LM ∥ QR and ST ∥ PR. Show that MT ∥ PQ.

17. ABCD is a trapezium with AB ∥ DC. E and F are points on non-parallel sides AD and BC respectively such that EF is parallel to AB (see figure). Show that $\dfrac{AE}{ED} = \dfrac{BF}{FC}$.