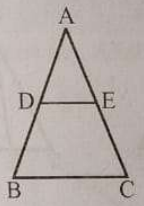
Triangles

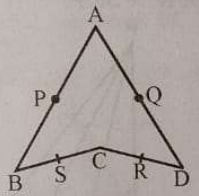
6

LEVEL - I

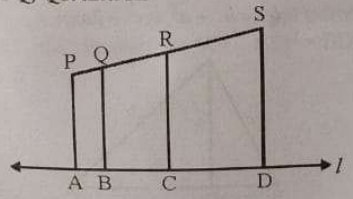
1. In figure DE || BC, if BD = x – 3, AB = 2x, CE = x –2 and AC = 2x + 3, find x.



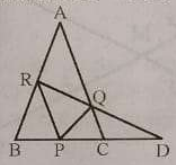
2. In the given figure, if P, Q, R and S are the mid-points of sides AB, AD, CD, BC respectively, prove that PQRS is a parallelogram.



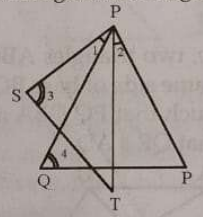
3. In figure, PA, QB, RC and SD are all perpendiculars to a line l, AB = 6 cm, BC = 9 cm, CD = 12 cm and SP = 36 cm. Find PQ, QR and RS.



4. In the given figure PQ || BA; PR || CA. If PD = 12 cm. Find BD × CD.



5. On occasion of independence day, Rajni made a Rangoli in a design as shown:



(a) If $\angle 1 = \angle 2$, $\angle 3 = \angle 4$, show that PT . QR = PR . ST

(b) What value is depicted by Rajni?

6. In Fig. $\angle M = \angle N = 46°$, express x in terms of a, b, c, where a, b and c are lengths of LM, MN and NK respectively.