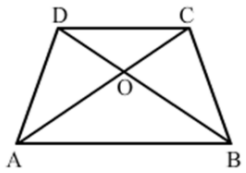
Chapter-Triangles
Question bank

Q1.

D and E are points on the sides AB and AC respectively of a ΔABC such that DE ‖ BC. Find the value of x when AD = x cm, DB = (x − 2) cm, AE = (x + 2) cm and EC = (x − 1) cm.

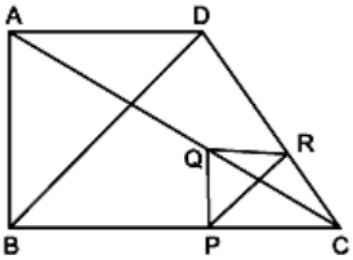
Q2.

In the adjoining figure, ABCD is a trapezium in which CD ‖ AB and its diagonals intersect at O. If AO = (2x + 1) cm, OC = (5x – 7) cm, DO = (7x – 5) cm and OB = (7x + 1) cm, find the value of x.



Q3.

In figure, two triangles ABC and DBC lie on the same side of base BC. P is a point on BC such that PQ ‖ BA and PR ‖ BD. Prove that QR ‖ AD.



Q4.

P and Q are points on the sides AB and AC respectively of a triangle ABC. If AP = 2 cm, PB = 4 cm, AQ = 3cm, QC = 6 cm, prove that BC = 3PQ.

Q5.

A girl of height 90 cm is walking away from the base of a lamp-post at a speed of 1.2 m/s. If the lamp is 3.6 m above the ground, find the length of her shadow after 4 seconds.

Q6.

State and prove Basic proportionality Theorem.

Q7.

ABC is a right-angled triangle, right-angled at A. A circle is inscribed in it. The lengths of the two sides containing the right angle are 6cm and 8 cm. Find the radius of the in circle.

Q8.

X and Y are points on the sides AB and AC, respectively of a triangle ABC such that $\frac{AX}{AB}$, $AY = 2$ cm and $YC = 6$ cm. Find whether $XY \| BC$ or not.

Q9.

6. In the given figure, ∠AEF=∠AFE and E is the mid-point of CA. Prove that $\frac{BD}{CD} = \frac{BF}{CE}$

Q10.

Let ABC be a triangle D and E be two points on side AB such that $AD = BE$. If $DP \| BC$ and $EQ \| AC$, then prove that $PQ \| AB$.

Ans : [Board Term-1 2012]