CHAPTER-8
QUADRILATERALS

WORKSHEET-3

1. D, E and F are respectively the mid-points of the sides AB, BC and CA of a triangle ABC. Prove that by joining these mid-points D, E and F, the triangles ABC is divided into four congruent triangles.
2. ABCD is a parallelogram in which diagonal AC bisects $\angle A$ as well as $\angle C$. Show that ABCD is a rhombus.
3. ABCD is a parallelogram. If the bisectors DP and CP of angles D and C meet at P on side AB, then show that P is the mid-point of side AB
4. D and E are the mid-points of the sides AB and AC of ΔABC and O is any point on side BC. O is joined to A. If P and Q are the mid-points of OB and OC respectively, then prove that DEQP is a parallelogram
5. P,Q and R are the mid points of the sides BC , CA and AB respectively of a triangle ABC. PR and BQ meet at X, CR and PQ meet at Y. If BC = 13cm ,then find XY
6. ABCD is a rectangle in which AB = 6cm and AD = 8cm. If P and Q are the mid points of the sides BC and CD respectively , then find the length of PQ.
7. In ΔPQR, PQ=10cm , PS and RT are *medians* and SM $\parallel$ RT . Then what is the length of QM.