JSUNIL TUTORIAL

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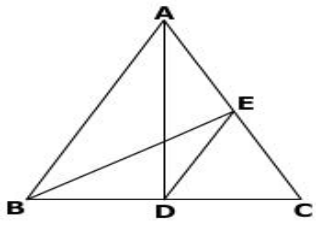
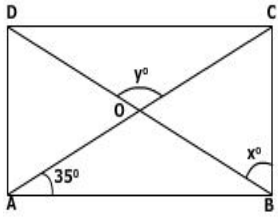
QUADRILATERAL IX-2

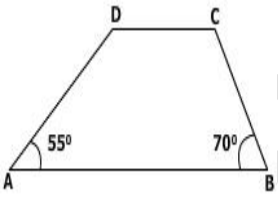
1. In fig 9.9 In the given figure AD is the median and DE II AB. Prove that BE is the median.



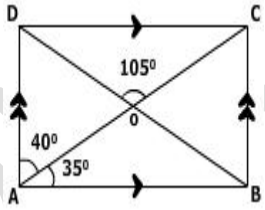
In fig 9.9



In fig 9.10



In fig 9.11



In fig 9.12

2. In the In fig 9.10, ABCD is a rectangle. Find the values of x and y.
3. ABCD is a parallelogram and E is the mid-point of side BC. If DE and AB , when produced meet at F. Prove that AF= 2AB
4. In fig 9.11, ABCD is a trapezium in which AB1l DC. If < A=55^0 and < B = 70^0.find <C and < D.
5. In fig 9.12, ABCD is a parallelogram in which < BAO = 35^0. < DAO = 40 ^{0} and < COD =105^0. Calculate (i) < ABO (ii) < ODC (iii) < ACB (iv) < CBD.
6. If an angle of a parallelogram is four-fifth of its adjacent angle, find the angles of the parallelogram.
7. The lengths of the diagonals of a rhombus are 24cmand18cmrespectively. Find the length of each side of the rhombus.
8. In figure9.13, LMNP is a parallelogram in which LM is produced to Q such that MQ = LM. Prove that PQ bisects MN.

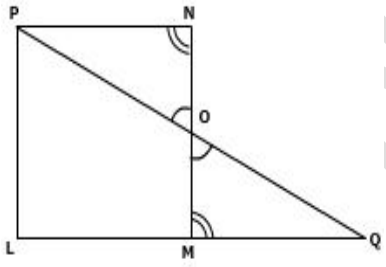


Fig. 9.13

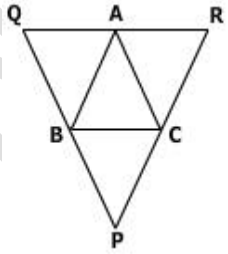


Fig. 9.14

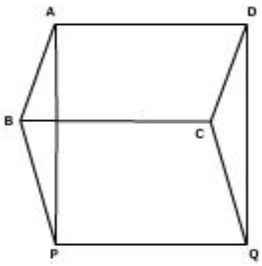


Fig. 9.15

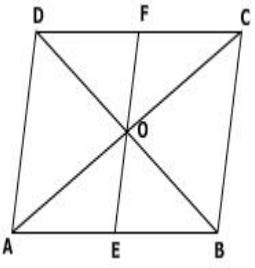


Fig. 9.16

9. In Fig. 9.14, ABC is a triangle. If lines are drawn through A, B , C parallel respectively to the sides BC ,CA and AB triangle PQR, show that BC= 1/2 QR.
10. In Fig. 9.15, ABCD and PBCQ are parallelograms. Prove that (I) APQD is a parallelogram, (II) AP= DQ
11. Fig. 9.16, ABCD is a parallelogram whose diagonals intersect each other at O. A line segment EOF is drawn to meet AB at E and DC at F. Prove that OE = OF.
12. Find the measure of each angle of a parallelogram if one of its angles is 30 less than twice the smallest