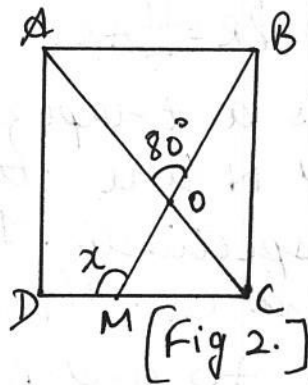
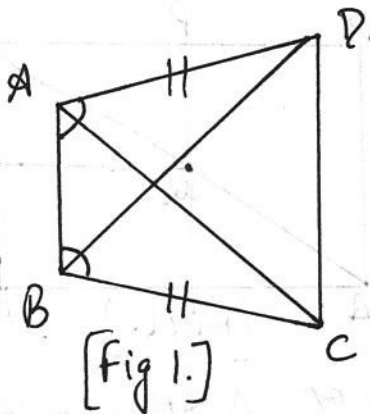


Ques 1. Diagonals AC and BD of a parallelogram ABCD intersect at O. If  $\angle BOC = 90^\circ$  and  $\angle BDC = 50^\circ$ . Find  $\angle OAD$ .  
(Ans  $\rightarrow 40^\circ$ )

Ques 2. If one angle of a parallelogram is  $36^\circ$  less than twice its adjacent angle, then find the angles of parallelogram. ( $108^\circ, 72^\circ, 108^\circ, 72^\circ$ )

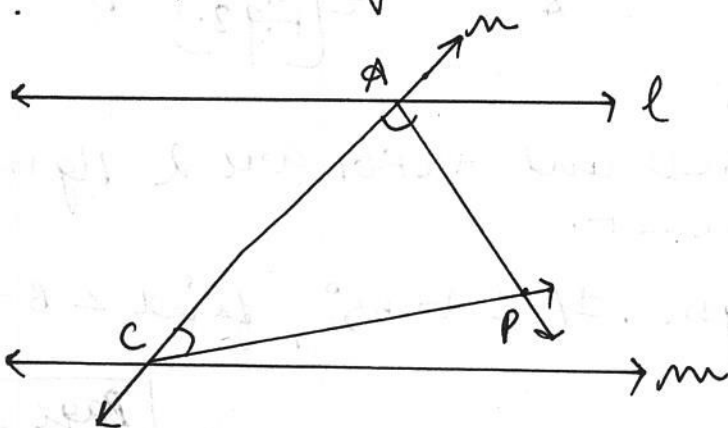
Ques 3. In a parallelogram, show that the angle bisectors of 2 adjacent angles intersect at right angles.

Ques 4. In fig 1. ABCD is a quad. in which  $AD = BC$  and  $\angle DAB = \angle CBA$ . Prove that (i)  $\triangle ABD \cong \triangle BAC$  (ii)  $BD = AC$

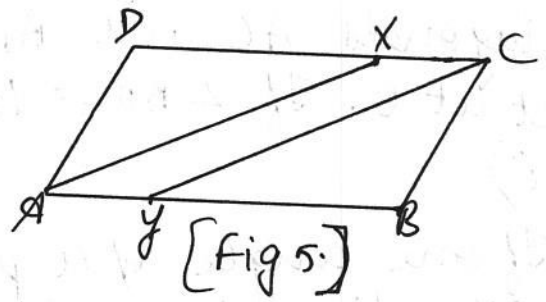
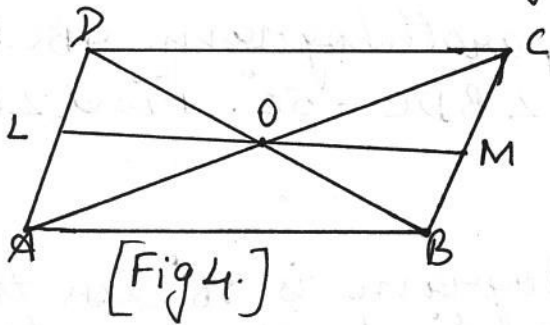


Ques 5. In the given (figure 2) ABCD is a square. A line BM intersects CD at M and diagonal AC at O such that  $\angle AOB = 80^\circ$ . Find the value of  $x$ . ( $125^\circ$ )

Ques 6. In the given fig 3. AP and CP are bisectors of  $\angle A$  and  $\angle C$  respectively and  $l \parallel m$ . Find the measure of  $\angle APC$ .



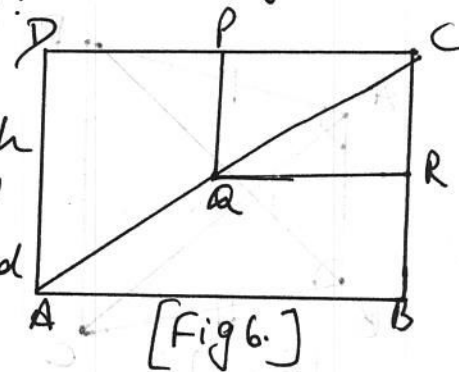
Ques 7. In fig 4. ABCD is a parallelogram in which diagonals AC and BD intersect at O. A line segment LM is drawn passing through O. Prove that  $LO = O$ .



Ques 8. In the given fig 5. ABCD is a ||gm and line segments AX and CY bisect the angles A and C respectively. Show that  $AX \parallel CY$ .

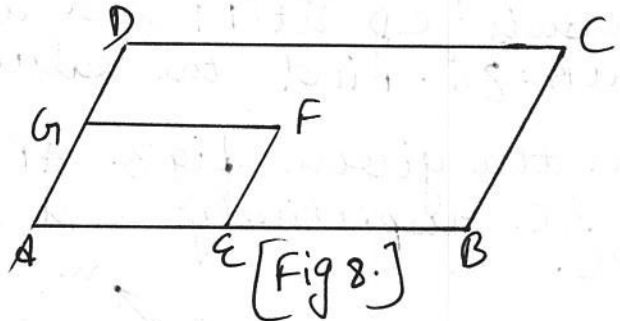
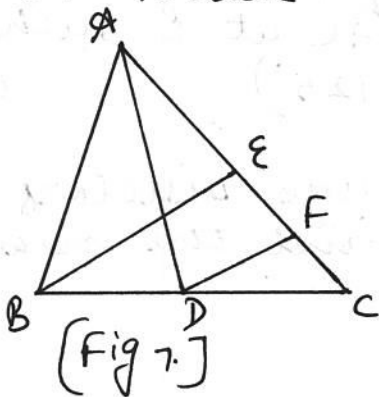
Ques 9. ABCD is a ||gm. AB is produced to E so that  $BE = AB$ . Prove that ED bisects BC.

Ques 10. In fig 6, ABCD and PARC are rectangles and Q is the mid pt. of AC. Prove that:  
(i)  $DQ = PC$  (ii)  $PQ = \frac{1}{2} AC$ .



Ques 11. ABCD is a trapezium in which  $AB \parallel DC$ . M and N are the mid pts. of AD and BC respectively. If  $AB = 12$  cm and  $MN = 14$  cm. Find CD. (16 cm)

Ques 12. In fig 7. AD and BE are medians of  $\triangle ABC$  and  $BE \parallel DF$ . Prove that  $CF = \frac{1}{4} AC$ .



Ques 13. In fig 8. ABCD and AEGF are 2 ||gms. If  $\angle C = 55^\circ$ . Determine  $\angle F$ .

Ques 14. ABCD is a ||gm. If  $\angle A = 65^\circ$ , find  $\angle B + \angle D$ .

Ans 15: ABCD is a rectangle with  $\angle BAC = 42^\circ$ .  
Determine  $\angle DBC$

Ans 16: In fig 9. A and B are on the same side of a line  $l$ .  $AD \perp l$  and  $BE \perp l$ . If C is the mid pt. of AB, prove that  $CD = CE$

