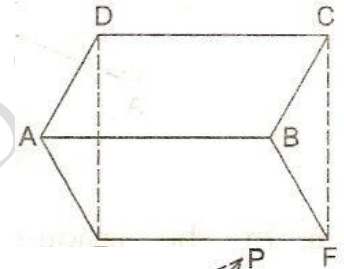


CBSE TEST PAPER-1

CLASS \_ IX

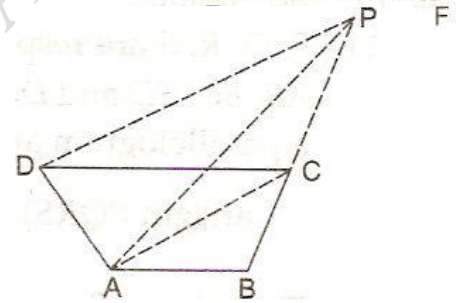
1. Prove that the median of a triangle divides it in two triangles of equal areas.
2. ABCD is a trapezium in which  $AB \parallel CD$ . If AC and BD intersect at O, prove that  $\text{ar}(\triangle BOC) = \text{ar}(\triangle AOD)$
3. AD is median on BC of  $\triangle ABC$ . E is mid point of AD. Prove that  $\text{ar}(\triangle BED) = \frac{1}{4} \text{ar}(\triangle ABC)$ .

4. In adjoining figure, two parallelograms ABCD and AEFB are drawn on opposite sides of AB.

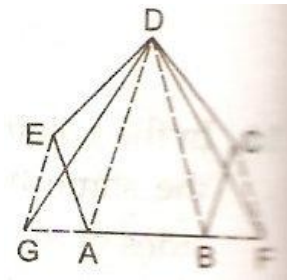


Prove that  $\text{ar}(\text{//gm ABCD}) + \text{ar}(\text{//gm AEFB}) = \text{ar}(\text{//gm EFCB})$

5. In the adjoining figure, ABCD is a quadrilateral. A line through D, parallel to AC meets BC produced in P. Prove that  $\text{ar}(\triangle DABP) = \text{ar}(\text{quad. ABCD})$



6. The given figure shows a pentagon ABCDE. EG, drawn parallel to DA, meets BA produced at G, and CF, drawn parallel to DB meets AB produced at F. Show that  $\text{ar}(\text{pentagon ABCDE}) = \text{ar}(\triangle DDGF)$



7. Prove that the triangles on same base and between same parallels are equal in area.
8. A point O inside a rectangle ABCD is joined to the vertices. Prove that the sum of areas of a pair of opposite triangles so formed is equal to the sum of areas of other pair of triangles.