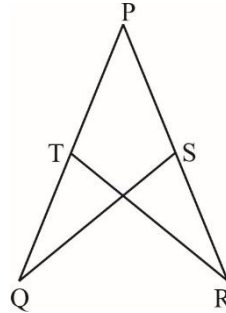
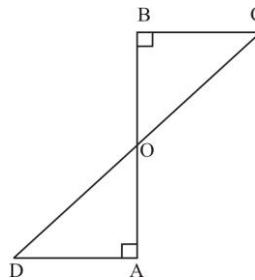


**National Institute of Open Schooling**  
**Secondary Course: Mathematics**  
**Lesson 11: Congruency of Triangles**  
**Worksheet – 11**

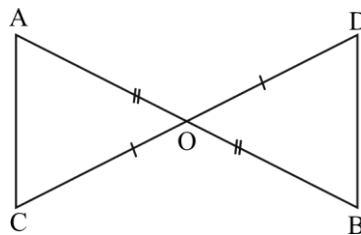
1. In figure,  $PQ = PR$  and  $\angle Q = \angle R$ , prove that  $\Delta PQS \cong \Delta PRT$



2. In a given figure AD, and BC are perpendicular to a line segment AB. If  $AD = BC$ , Show that CD bisects AB.

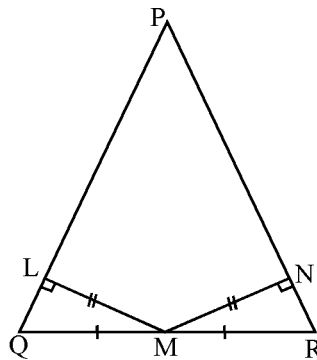


3. Draw any five pair of geometrical figures those which are congruent to each other.
4. Draw any five different triangles, measure and observe that sum of any two sides of a triangle is greater than the third side.
5. In figure, 'O' is the midpoint of AB and CD. Prove that  $AC = BD$  and AC is parallel to BD



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6. In a triangle PQR, If the median PS is perpendicular to the base PR then prove that the triangle PQR is an isosceles triangle.
7. In the figure it is given that  $LM = MN$ ,  $QM = MR$ ,  $ML \perp PQ$  and  $MN \perp PR$ . Prove that  $PQ = PR$ .



8. Explain any two criteria for congruence of triangle with one example from each criteria.
9. If  $\triangle ABC$  is an isosceles triangle such that  $AB = AC$  then altitude AD from A on BC bisects BC.
10. ABCD is a quadrilateral in which diagonal AD and BC intersect at O. Prove that  $AB + BC + CD + AD$  is greater than  $AD + BC$ .