

National Institute of Open Schooling (NIOS)
Secondary Course
Lesson –13: Quadrilaterals
Worksheet – 13

1. Describe any three types of quadrilaterals and verify its properties.
2. In a parallelogram PQRS angle P is 70° , Find the measures of other three angles of the parallelogram PQRS.
3. The adjacent angles of a rhombus ABCD are in the ratio of 3:7. Find the measures of all angles of the rhombus ABCD.
4. The figure obtained by joining the mid-points of the adjacent sides of a rectangle of sides 8 cm and 10 cm is a rhombus, find its area.
5. Find the area of a rhombus, one side of which measures 20 cm and one of whose diagonals is 20 cm.
6. Show that the diagonals of parallelogram divide it into four triangles of equal area.
7. In a parallelogram ABCD the bisector of $\angle A$ also bisects BC at X. Prove that $AD = 2 AB$
8. Prove that in a triangle the line segment joining the mid points of any two sides is parallel to third side and is half of it.
9. Prove that the parallelograms on the same base (or equal bases) and between the same parallels are equal in area.
10. In a parallelogram PQRS if $\angle P = (3x - 5)^\circ$ and $\angle Q = (2x + 15)^\circ$ find the value of x.