

DELHI PUBLIC SCHOOL JAMMU
SESSION: 2024-2025
ASSIGNMENT

CHAPTER: QUADRILATERALS CLASS:9TH

1. The angles of the quadrilateral are in the ratio 3: 5 : 9: 13. Find all the angles of the quadrilateral.
2. Three angles of a quadrilateral are equal and the fourth angle is equal to 144° . Find each of the equal angles of the quadrilateral.
3. In quadrilateral PQRS, if $\angle P = 60^\circ$ and $\angle Q : \angle R : \angle S = 2:3:7$, then find the measure of $\angle S$.
4. Prove that a diagonal of a parallelogram divide it into two congruent triangles.
5. If the diagonals of a parallelogram are equal, then show that it is a rectangle.
6. Quadrilateral ABCD is the required rectangle in which diagonal AC bisects $\angle A$ as well as $\angle C$. Express that
 - (i) ABCD is the required square
 - (ii) The required diagonal BD bisects $\angle B$ as well as $\angle D$.

7. Diagonal AC of a parallelogram ABCD bisects $\angle A$ (see figure). Show that
 - (i) it bisects $\angle C$ also,
 - (ii) ABCD is a rhombus.

