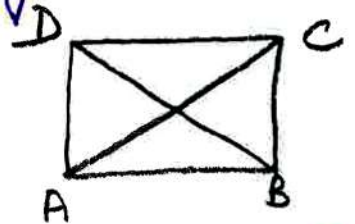




Quadrilaterals

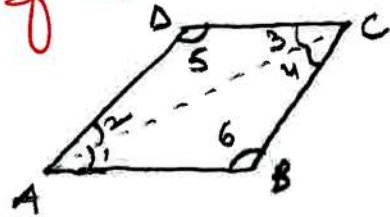
Quadrilateral : It is polygon with 4 sides & 4 angles & 4 vertices.

This Quadrilateral has 4 sides & 4 angles, AB, BC, CD & DA, angles are $\angle A$, $\angle B$, $\angle C$, $\angle D$.



Angle sum property

Theorem :- Sum of 4 angles of Quadrilateral is 360°



Remarks :-

- ① A square, rectangle & rhombus are parallelogram.
- ② Every parallelogram is not trapezium.
- ③ A rectangle or rhombus is not necessarily a square.
- ④ A kite is not a parallelogram.
- ⑤ A quadrilateral is a parallelogram.

Properties of Parallelogram

- A diagonal of parallelogram divide it into two congruent triangle.



- In parallelogram, opposite sides are equal.
- The opposite angles are equal.
- The Diagonals bisect each other.
- Bisector of any two consecutive angle intersect at right angle.
- If diagonal bisect one of angle, it also bisect the second angle & it is Rhombus.
- The angle bisector of parallelogram form a rectangle.
- Mid-point Theorem :-
The line segment joining the mid-points of any two sides of triangle is parallel to third side & equal to half of it.