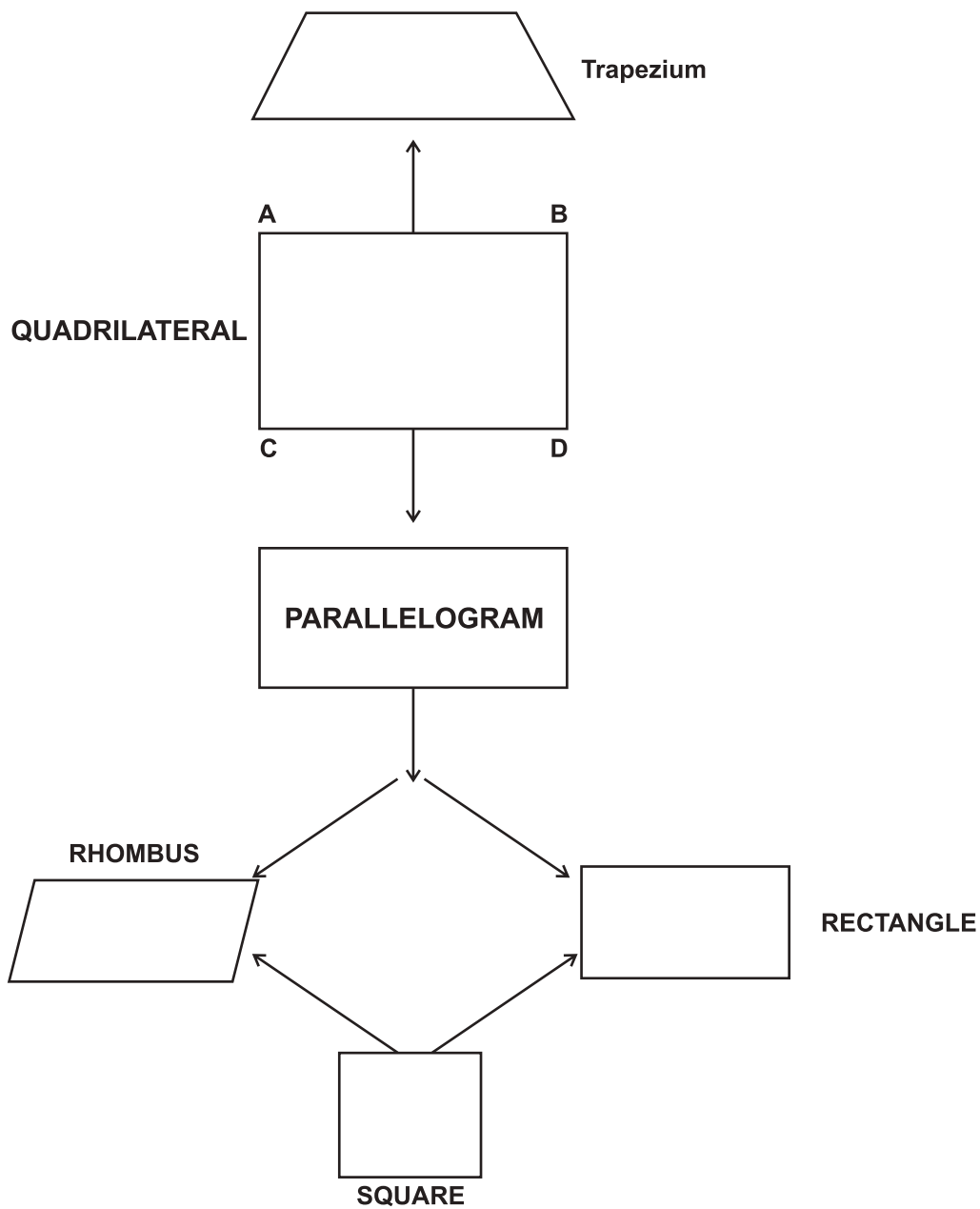


CHAPTER-8 QUADRILATERAL MIND MAPPING

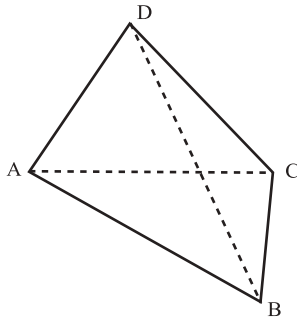


CHAPTER-8

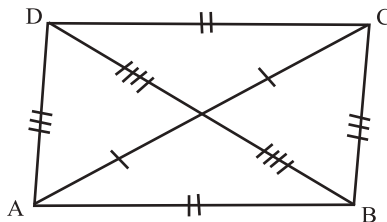
QUARILATERAL

KEY POINTS

1. Quadrilateral : - A closed figure bounded by four line segments. In a quadrilateral are

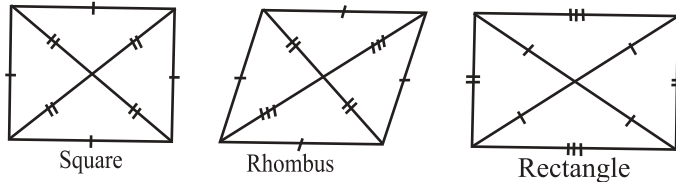


- i) Two pairs of opposite sides (no common point)
e.g. AB & CD, BC & AD
 - ii) Two pairs of opposite angles $\angle A$ & $\angle C$ and $\angle B$ & $\angle D$.
 - (iii) Four pairs of adjacent sides AB & BC, BC & CD, CD & AD and AD & AB (one common point)
 - (iv) Four pairs of adjacent angles $\angle A$ & $\angle B$, $\angle B$ & $\angle C$, $\angle C$ & $\angle D$, $\angle D$ & $\angle A$.
 - (v) Line segment joining opposite vertices called diagonal of quadrilateral. e.g., AC & BD.
 - (vi) Sum of the angles of a quadrilateral is 360° , $\angle A + \angle B + \angle C + \angle D = 360^\circ$.
2. Parallelogram : A quadrilateral is a parallelogram if.

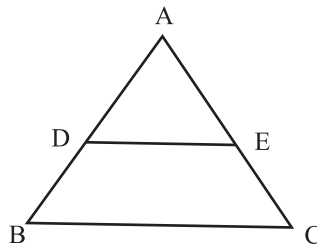


- Opposite sides are equal or
- Opposite angles are equal or
- Diagonals bisect each other or
- One pair of opposite sides is equal and parallel

3. A diagonal of a parallelogram divides it into two congruent triangles.
Examples of parallelogram:



4. Theorem :- A line segment joining the mid points of the two sides of a triangle is parallel to the third side and is half of it. If D & E are mid points then $DE \parallel BC$ and $DE = \frac{1}{2} BC$.



5. Converse of mid point theorem.
The line drawn through the mid point of one side of a triangle, parallel to another side bisects the third side.

PART-"A"

- Three angles of a quadrilateral are 75° , 90° , 75° the fourth angle is
 - 90°
 - 95°
 - 105°
 - 120°
- ABCD is a rhombus such that $\angle ACB = 40^\circ$ the $\angle ABD$ is
 - 40°
 - 45°
 - 50°
 - 60°
- The bisector of the angles of a parallelogram enclose a
 - Parallelogram
 - Square
 - Rhombus
 - Rectangle
- The figure obtained by joining the midpoints of the sides of quadrilateral taken in order is a
 - Square
 - Parallelogram
 - Rectangle
 - Rhombus