CHAPTER 03

Understanding Quadrilaterals

Polygons:

A closed plane figure bounded by line segments is called a ‘Polygon’.

(OR)

A simple closed curve, which is made up of line segments only is called a ‘Polygon’.

Examples:

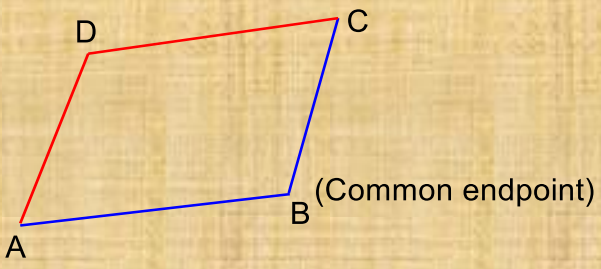
Note:

- The line segments are called its ‘sides’.
- The points of intersection of consecutive sides are called its ‘vertices’.
- An angle formed by two consecutive sides of a polygon is called an ‘interior angle’ or ‘angle of the polygon’.

Adjacent sides:

Any two sides with a common end – point (vertex) are called ‘adjacent sides’ of the polygon.

Example:

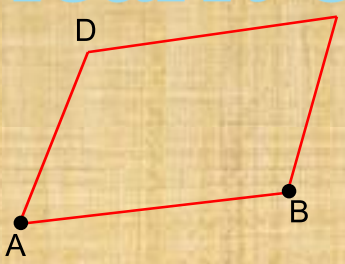


Here, $\overline{AB}$ and $\overline{BC}$ are adjacent sides.

Adjacent vertices:

The end – points of the same side of a polygon are known as ‘adjacent vertices’.

Example:

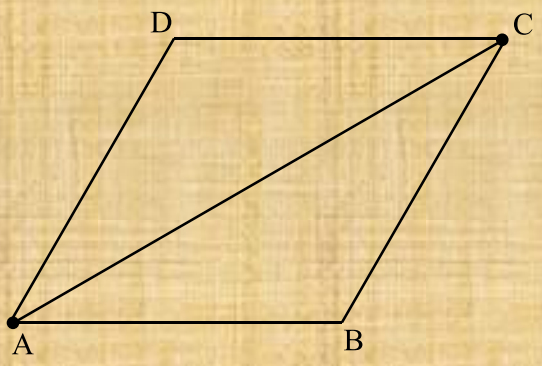


Here, A and B are adjacent vertices.

Diagonals:

Line segment joining any two non – consecutive vertices of a polygon is called its ‘Diagonal’.

Example:



Here, A and C are non – consecutive vertices. $\overline{AC}$ is called diagonal.