MATHS
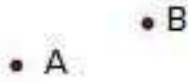
Basic Geometrical Ideas

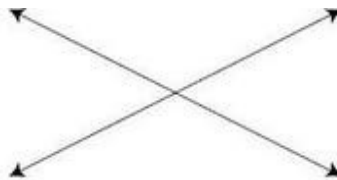1. A point determines a location. It is denoted by a capital letter.

Point A, Point B

2. Shortest distance between two points is called line segment. The shortest distance between two points A and B is denoted by $\overline{AB}$.

3. A line is obtained when a line segment is extended on both sidesindefinitely.

4. Two distinct lines meeting at a point are called intersectinglines.

5. Two lines in a plane are said to be parallel if they do not meet, howsoever far they areextended.

6. Three or more lines in a plane are said to be concurrent if all of them pass through the samepoint.

7. A ray is a portion of a line starting at a point and going in one direction endlessly.

8. Pictures that are the results of doodling are called curves.

9. A curve that does not cross itself is called simplecurve.

10. A curve is said to be closed if its end points are joined. Otherwise, it is said to beopen.

11.   A polygon is a simple closed curve made up of linesegments.
    i.   The line segments forming a polygon are called itssides.
    ii.   Any two sides with a common end point are adjacentsides.
    iii.   The meeting point of a pair of sides is called avertex.
    iv.   The end points of the same side are adjacent vertices.
    v.   The joint of any two non-adjacent vertices is called adiagonal.

12. An angle is made up of two rays starting from a common end point. Two rays forming the angle are called the arms or sides of the angle. The common end-point is the vertex of theangle.

13. A triangle is 3 sidedpolygon.

14. A quadrilateral is a 4 sidedpolygon.

15. A circle is the path of a point moving at the same distance from a fixed point. The fixed point iscalled center of circle and fixed distance is called radius of circle.

The distance around a circle is called its circumference.

A chord of a circle is a line segment joining any two points on the circle.

A diameter is a chord passing through the centre of the circle

A sector is the region in the interior of a circle enclosed by an arc on one side and a pair of radii on the other two sides.

A segment of a circle is a region in the interior of the circle enclosed by an arc and a chord.

The diameter of a circle divides it into two semi-circles.