

ATOMIC ENERGY CENTRAL SCHOOL-4,

ANUSHAKTINAGAR, MUMBAI

CLASS 9 , MATHEMATICS ,

UNIT : LINES AND ANGLES

MODULE -1

Introduction

- In math geometry the lines and angles are important tools. If any object in ideal, that is called as line and it is represented as straight curve.
- The angle is related with line that is the cross-section of two-line is create the angle and that intersection point is called as vertex. Here we see about types of line and angle in math.
- Basic Terms And Definition
- **LINE:** A straight path extending in both directions with no endpoints
- **LINE SEGMENT:** A part of a line that includes two points, called endpoints, and all the points between them
- **RAY:** A part of a line, with one endpoint, that continues without end in one direction
- **Intersecting Lines :** Lines that cross each other.
- **Non Intersecting lines :** Lines that never cross.
- **Parallel lines** Lines that never cross and are always the same distance apart, are called parallel lines.
- **Perpendicular lines:** Two lines that intersect to form four right angles.
- **Angles:** In geometry, an angle is the figure formed by two rays sharing a common endpoint, called the vertex of the angle. The magnitude of the angle is the "amount of rotation" that separates the two rays, and can be measured by considering the length of circular arc swept out when one ray is rotated about the vertex to coincide with the other.
- Acute Angle, Right Angle, Obtuse Angle,
- Straight angle, Reflex Angle, Complete angle
- Pairs of angles: Adjacent Angles, Linear Pair Of Angles, Vertically Opposite Angles

Adjacent Angles : In geometry, adjacent angles, often shortened as adj. \angle s, are angles that have a common ray coming out of the vertex going between two other rays. In other words, they are angles that are side by side, or adjacent.

Linear Pair Of Angles : A pair of adjacent angles formed by intersecting lines. Linear pairs of angles are supplementary.

Vertically Opposite Angles: In geometry, a pair of angles is said to be vertical (also opposite and vertically opposite, which is abbreviated as vert. opp. \angle s) if the angles are formed from two intersecting lines and the angles are not adjacent. They all share a vertex. Such angles are equal in measure and can be described as congruent.