Comparison of Angles

Comparison of Angles

- An angle is formed when two rays meet at a common point.
- The point where they meet is called the vertex.
- The two rays are called the arms of the angle.

We compare angles by checking their degree measure. The larger the degree, the bigger the angle.

Methods to Compare Angles

1. By Observation:

If one angle opens wider than another, it is larger.

Example: The door opened slightly (30°) vs. a widely open door (120°).

2. By Measurement:

Use a protractor to measure angles in degrees.

Compare their values.

Example: A 75° angle is smaller than a 100° angle.

3. By Superimposition:

Place one angle over another to see which one is larger.

Example: If two paper angles are cut out, placing one over another helps compare them.

Types of Angles Based on Comparison

Angle Type	Comparison	Example
Smaller Angle	Has a lower degree measure	A 30° angle is smaller than a 60° angle
Larger Angle	Has a higher degree measure	A 150° angle is larger than a 90° angle
Equal Angles	Have the same degree measure	Two right angles (90° each) are equal

Properties of Angle Comparison

i.   Angles are compared based on their degree measure (°).

ii.   The larger the opening, the greater the angle.

iii.   A 90° angle is greater than any acute angle but smaller than any obtuse angle.

iv.   A straight angle (180°) is always greater than a right or obtuse angle.

v.   A complete angle (360°) is the largest possible angle.