

**WEEK: THREE.**

**SUBJECT: BASIC TECHNOLOGY.**

**CLASS: JSS2.**

**TOPIC: POLYGONS.**

## **POLYGONS**

A Polygon is a plane figure bounded by three or more straight sides.

### **Types of polygons**

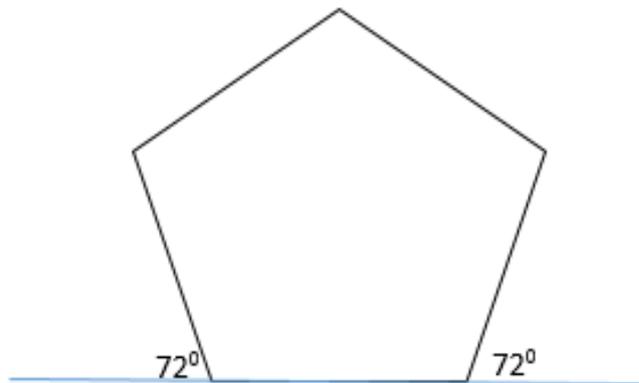
1. **Regular polygons:** These are polygons with all their sides and angles equal.
2. **Irregular polygons:** These are polygons with unequal sides and angles.

### **Form of polygons**

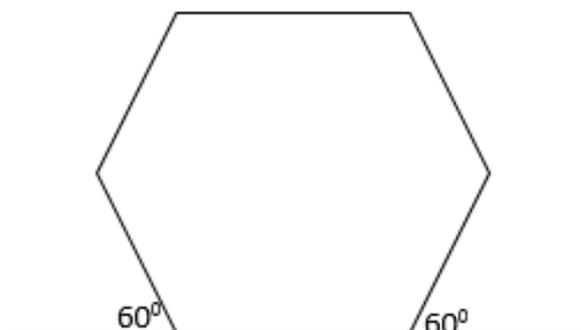
1. **Pentagon:** This is a plane figure with five sides.
2. **Hexagon:** This is a plane figure with six sides.
3. **Heptagon:** This is a plane figure with seven sides.
4. **Octagon:** This is a plane figure.
5. **Nonagon:** This is a plane figure with ten sides.

### **Construction of polygons**

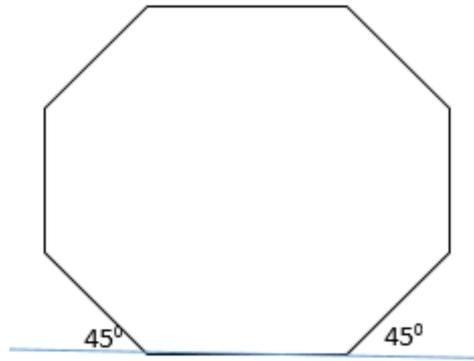
1. **Pentagon:** The external angle of a pentagon is  $360^{\circ}/5 = 72^{\circ}$   
To construct a pentagon ABCDEA of 40mm sides



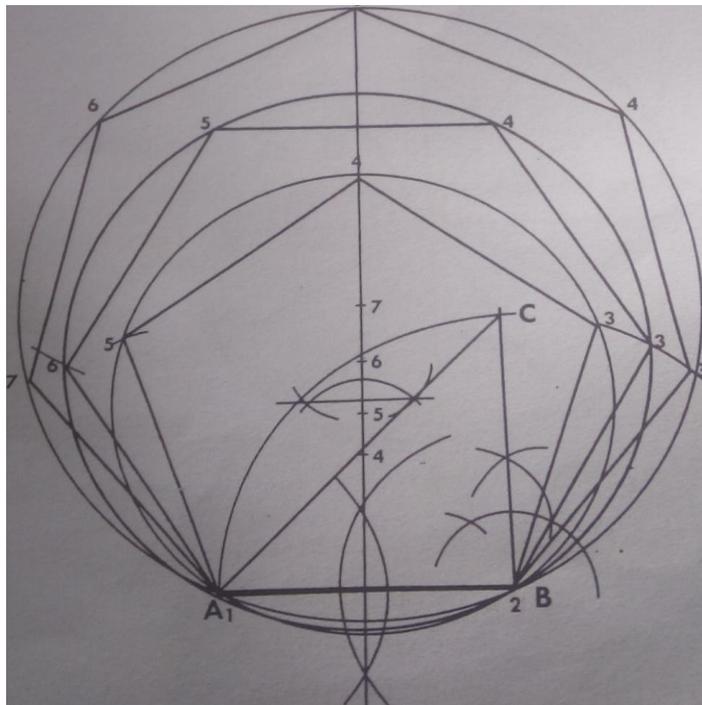
2. **Hexagon:** The external angle of a hexagon is  $360/6 = 60^{\circ}$   
To construct a hexagon ABCDEFA of 30mm sides.



3. **Octagon:** The external angle is  $360/8 = 45^\circ$   
To construct an octagon of sides 30mm



4. The general formula for constructing polygons.



**ASSIGNMENT:**

1. Construct a pentagon of sides 35mm.
2. Construct a hexagon of 40mm sides.