

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

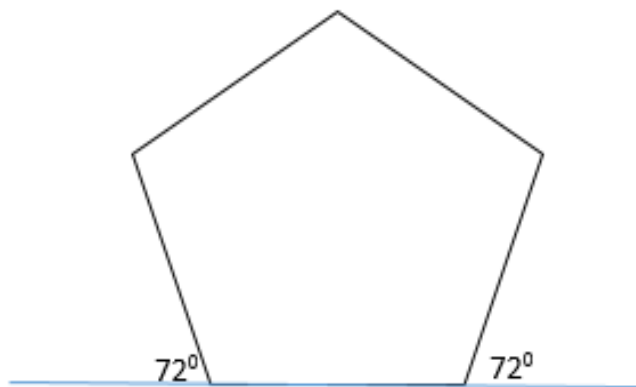
1. **Regular polygons:** These are polygons with all their sides and angles equal.
2. **Irregular polygons:** These are polygons with unequal sides and angles.

Form of polygons

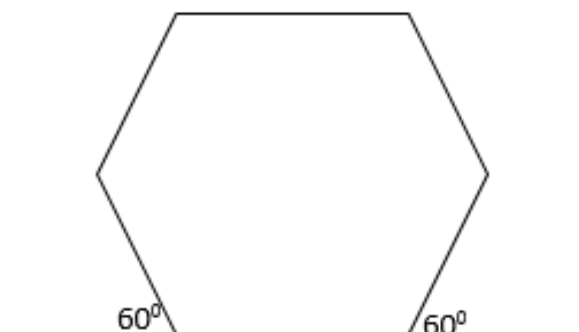
1. **Pentagon:** This is a plane figure with five sides.
2. **Hexagon:** This is a plane figure with six sides.
3. **Heptagon:** This is a plane figure with seven sides.
4. **Octagon:** This is a plane figure.
5. **Nonagon:** This is a plane figure with ten sides.

Construction of polygons

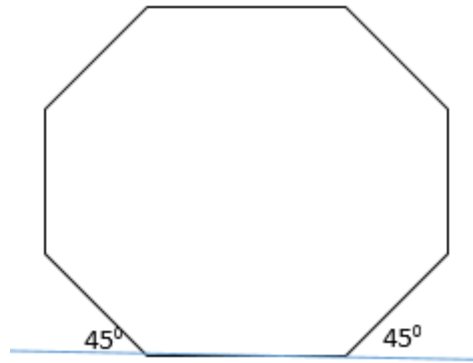
1. **Pentagon:** The external angle of a pentagon is $360^{\circ}/5 = 72^{\circ}$
To construct a pentagon ABCDEA of 40mm sides



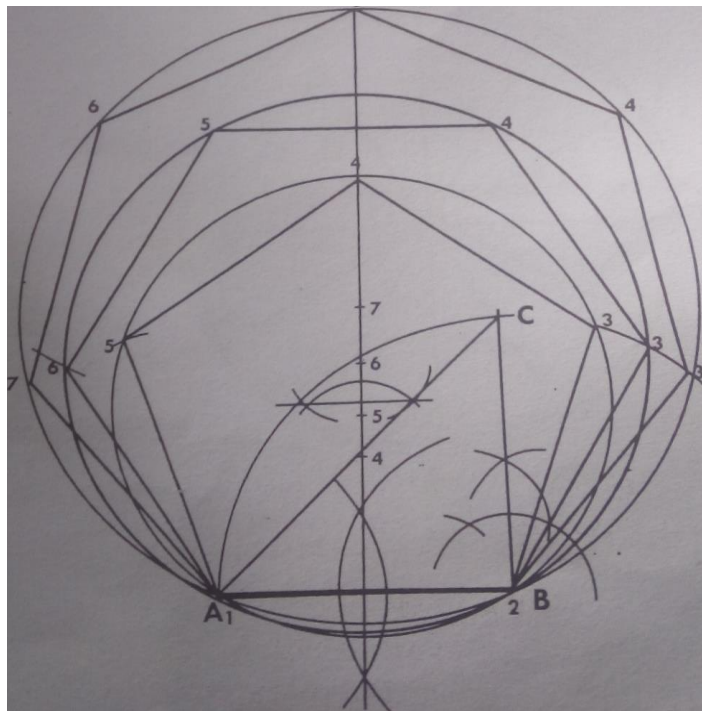
2. **Hexagon:** The external angle of a hexagon is $360/6 = 60^{\circ}$
To construct a hexagon ABCDEFA of 30mm sides.



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.