Pictorial Drawing

It is a method of producing a three-dimensional object from a two-dimensional object that shows three main faces.

Types of pictorial projection

There are three main types of pictorial projection
Axonometric projection
Oblique projection
Perspective projection

Axonometric Projection

Type of axonometric drawing

1. Isometric
   All angles are equal.

2. Dimetric
   Two angles are equal.

3. Trimetric
   None of angles are equal.
Example 1: Object has only normal surfaces

Example 2: Object has inclined surfaces

Example 3: Object has inclined surfaces

Example 4
Circle & Arc in Isometric

- In isometric drawing, a circle appears as an ellipse.

**Sketching Steps**
1. Locate the center of an ellipse.
2. Construct an isometric square.
3. Sketch arcs that connect the tangent points.

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**Circle & Arc in Isometric**

- *Four-center* method is usually used when drawn an isometric ellipse with drawing instrument.

**Sketching Steps**
1. Locate the center of an ellipse.
2. Construct an isometric square.
3. Construct a perpendicular bisector from each tangent point.
4. Locate the four centers.
5. Draw the arcs with these centers and tangent to isometric square.

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**Example 5**
Irregular Curve in Isometric

Steps
1. Construct points along the curve in multiview drawing.
2. Locate these points in the isometric view.
3. Sketch the connecting lines.

Object Orientation Guidelines

• The main advantage of oblique projection over isometric is that any complicated faces which may be curved, irregular, or have a numbers of holes can be drawn as its true shape using instruments.

Oblique Projection

Oblique drawing angle

One of the principal plane is parallel to the plane of projection (observer)
Object Orientation Guidelines

Which orientation is better?

Sketch from actual object

Sketch from multiview drawing

Sketch from multiview drawing