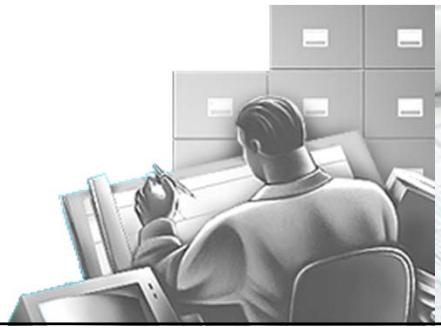
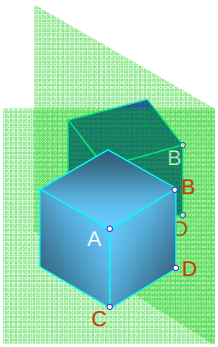
Pictorial Drawings

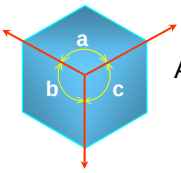


Axonometric Projection

Type of axonometric drawing



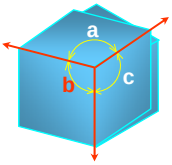
1. Isometric



Axonometric axis

All angles are equal.

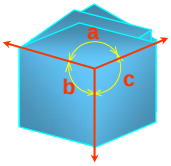
2. Dimetric



Axonometric axis

Two angles are equal.

3. Trimetric

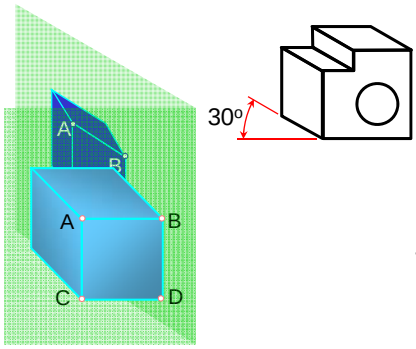


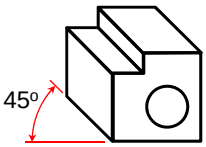
Axonometric axis

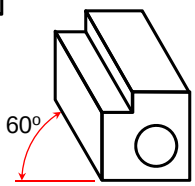
None of angles are equal.

Oblique Projection

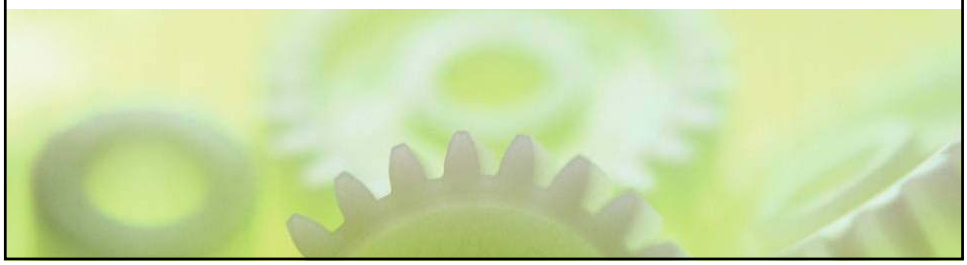
Oblique drawing angle







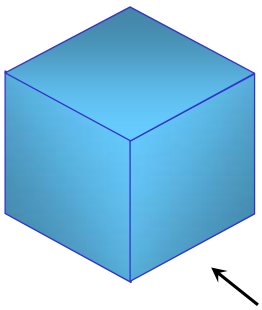
Isometric Drawing



Isometric Drawing

Isometric drawing is a drawing drawn on an isometric axes using ***full scale***.

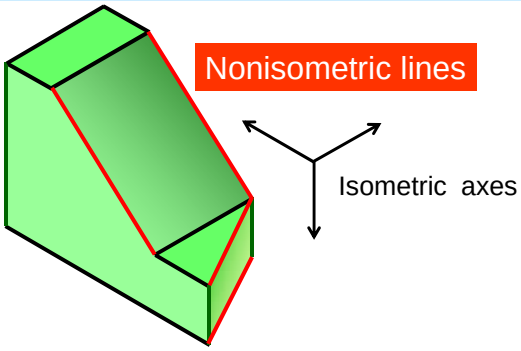
Isometric drawing
(Full scale)



Full scale

Distance in Isometric Drawing

- **True-length distances** are shown along isometric lines.
- ***Isometric line*** is the line that run ***parallel*** to any of the isometric axes.

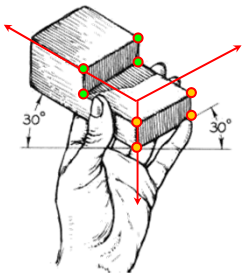


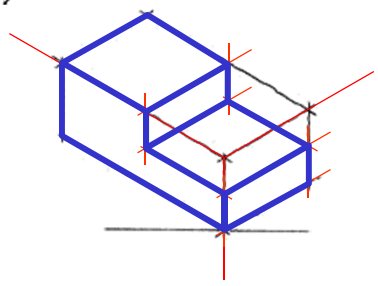
Isometric Sketching

Sketch from an actual object

STEPS

1. Positioning object.
2. Select isometric axis.
3. Sketch enclosing box.
4. Add details.
5. Darken visible lines.





Sketch from an actual object

STEPS

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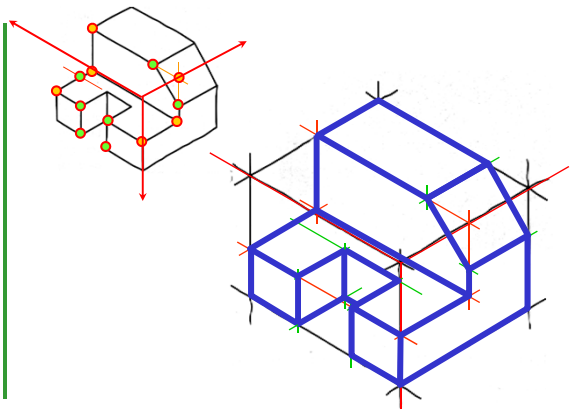
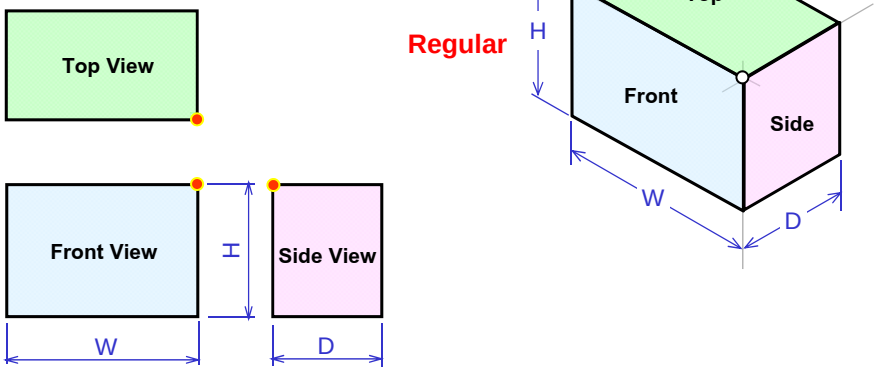


Note In isometric drawing, hidden lines are ***omitted*** unless they are absolutely necessary to completely describe the object.

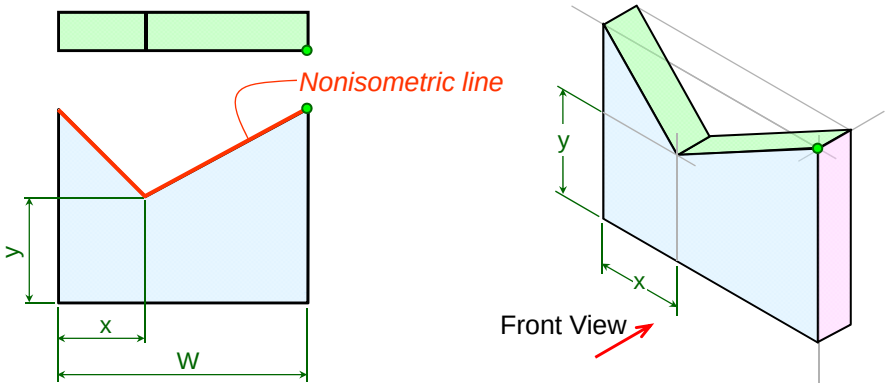
Sketch from multiview drawing

1. Interprete the ***meaning of lines/areas*** in multiview drawing.
2. Locate the lines or surfaces relative to isometric axis.

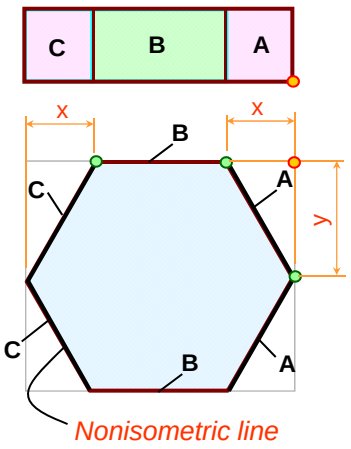
Example 1 : Object has only normal surfaces

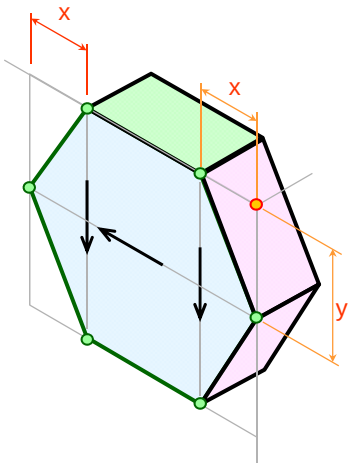


Example 2 : Object has inclined surfaces

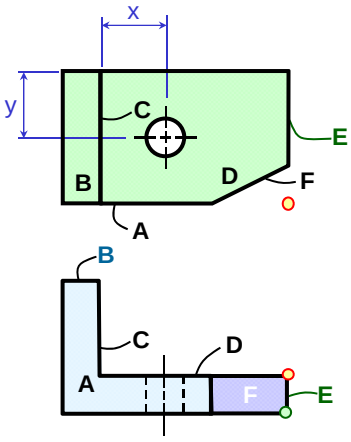


Example 3 : Object has inclined surfaces

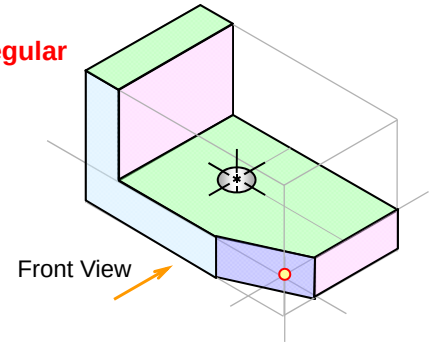




Example 4



Regular

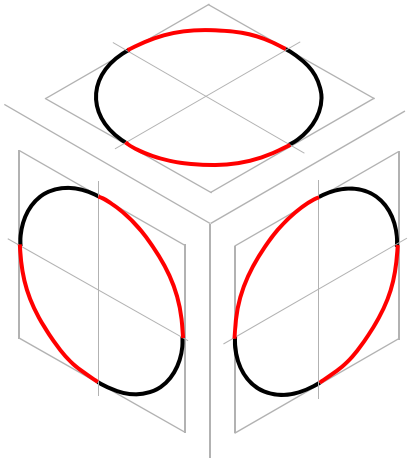


Circle & Arc in Isometric

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

Steps

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



Example 5