

# ENGINEERING DRAWING

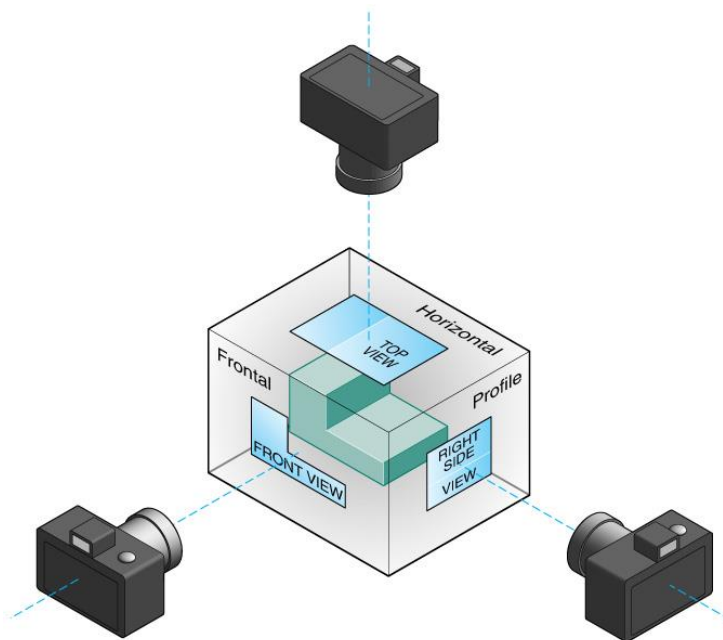
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In this semester we learned a lot about engineering drawing .There are a lot of methods in engineering drawing like multi-view, isometric view, etc.

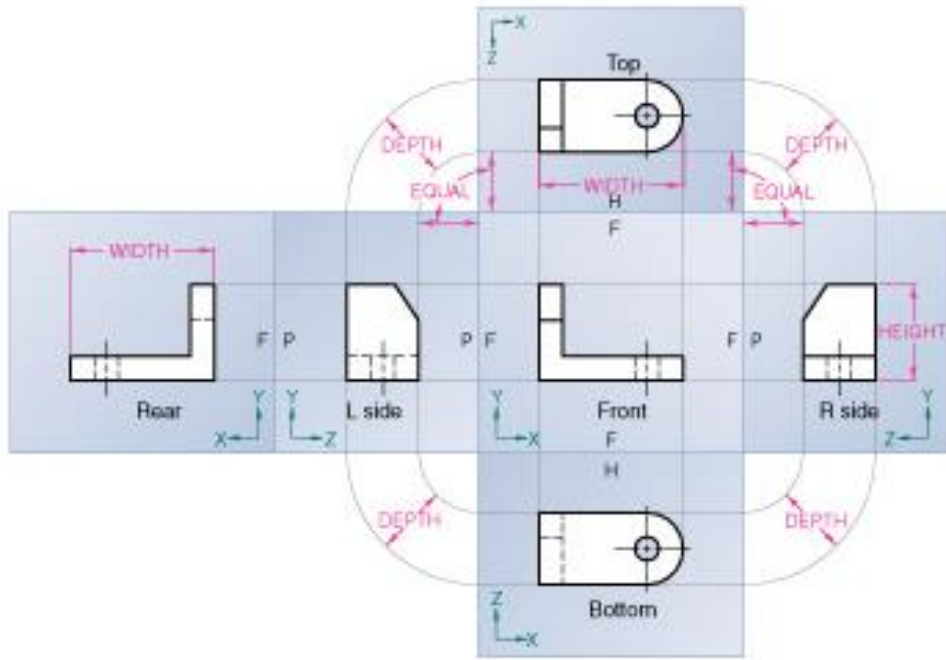
## 1.MULTI-VIEW DRAWING

The purpose of a Multiview Drawing is to represent a three dimensional object on a two dimensional sheet of paper or in a two dimensional drawing space.

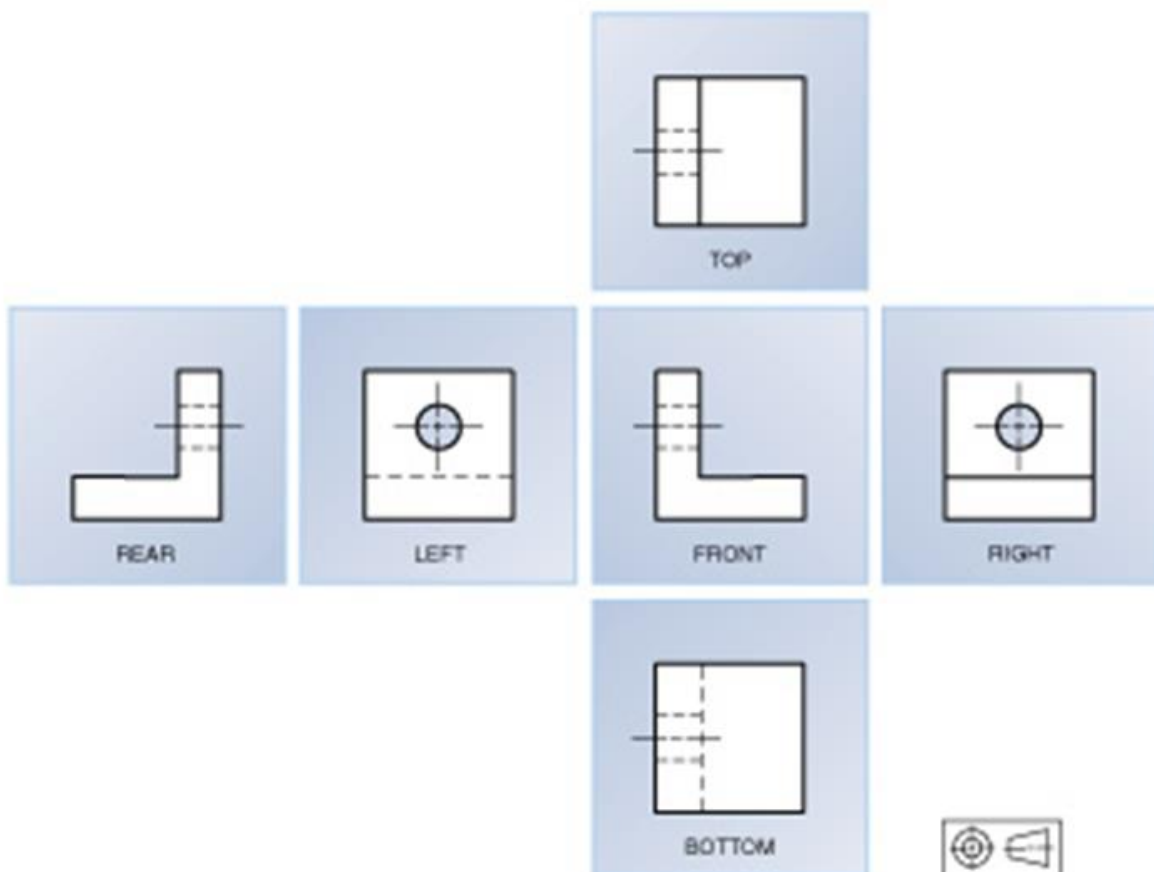
### Camera Metaphor



# MULTI-VIEW PROJECTION



## U.S. STANDARD



## BASIC LINES



**Object line**



**Hidden line**

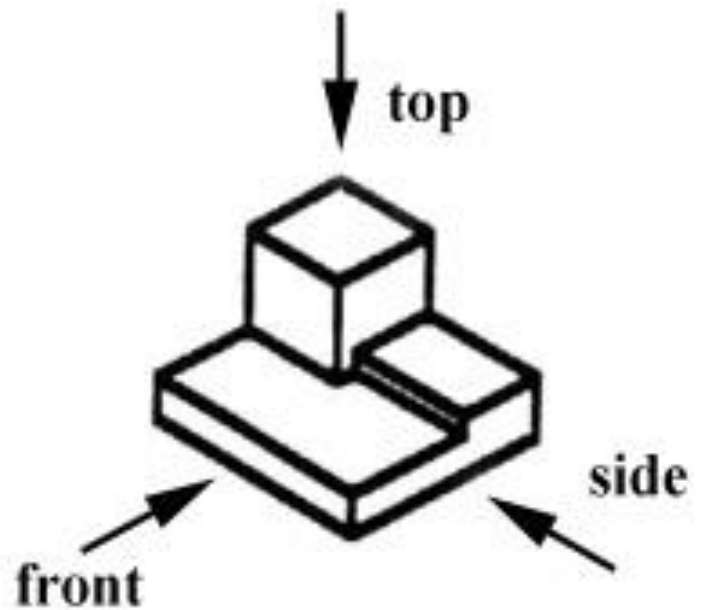
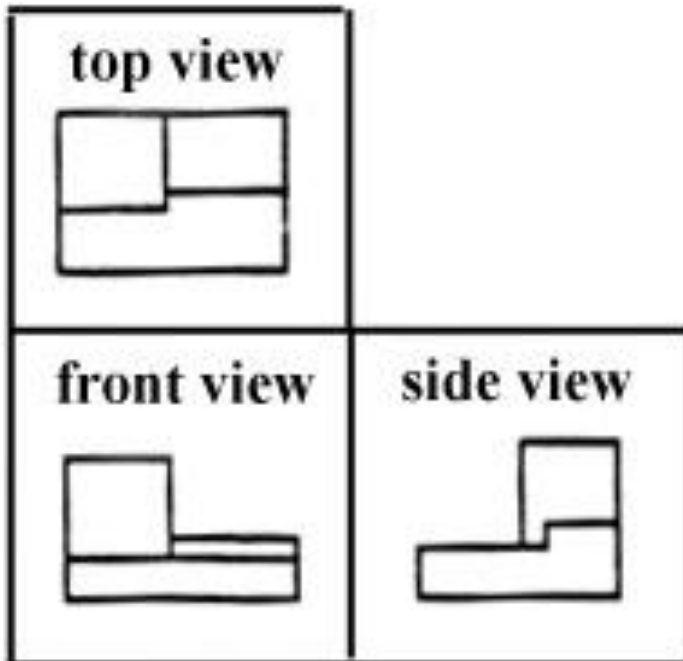


**Center line**



**Dimension line**

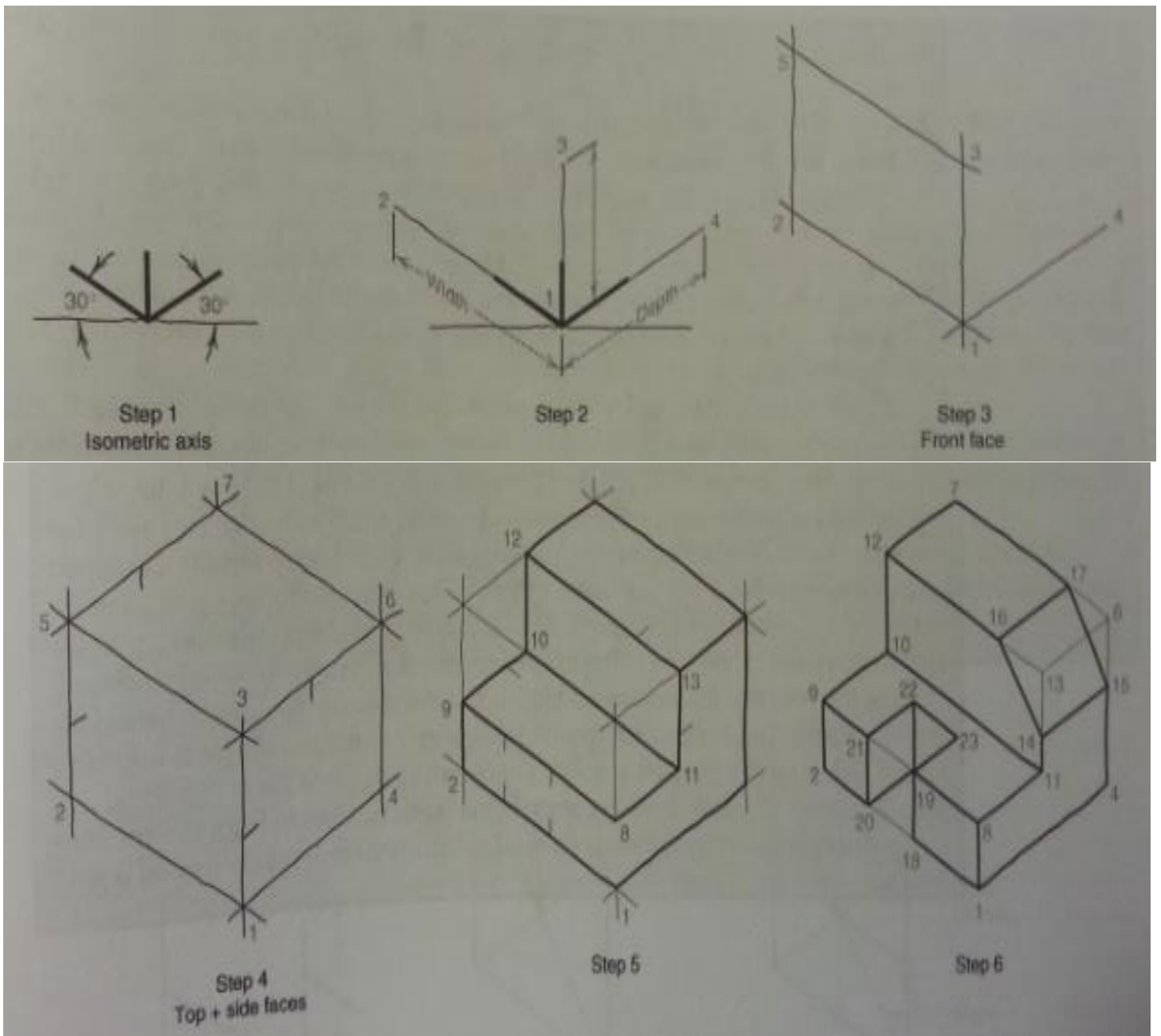
## CREATING A 3 VIEW SKETCH



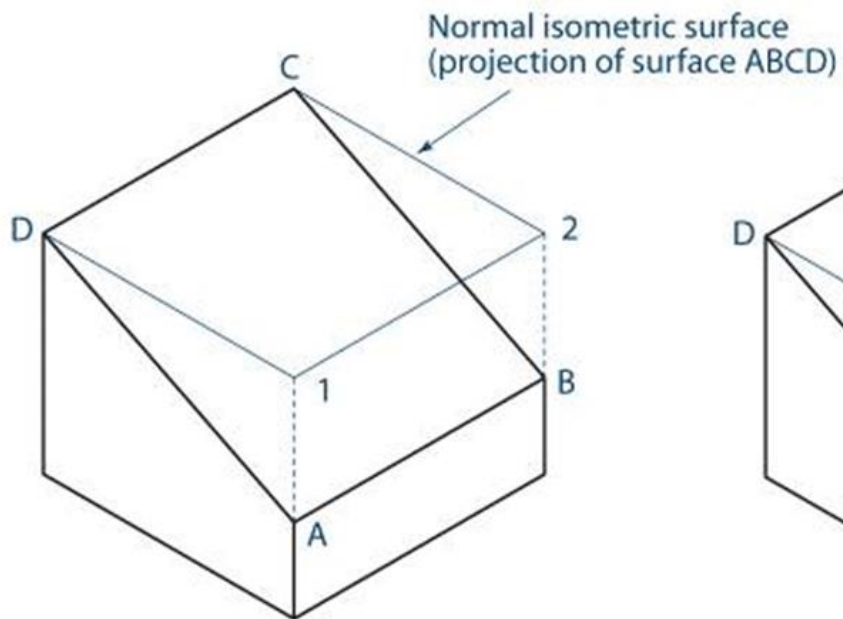
## 2. ISOMETRIC DRAWING

Isometric drawing is made when multi – view of an object is given .  
Isometric drawing creates a 3d image of that object.

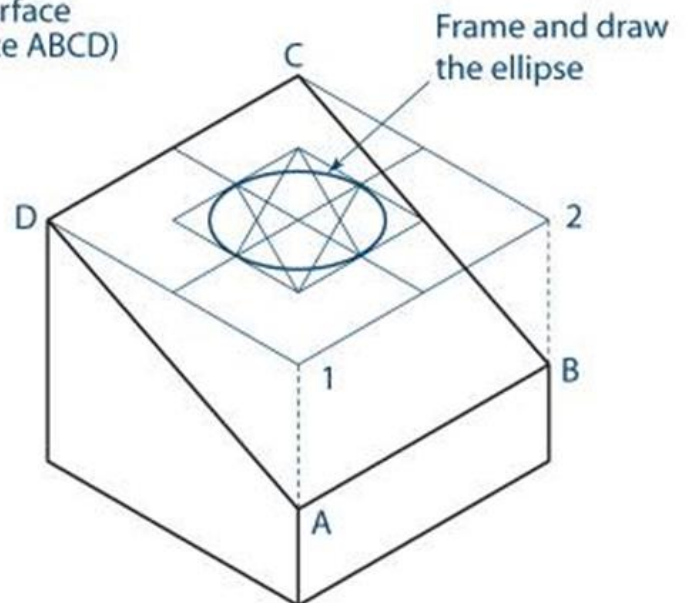
### How To Draw An Isometric Drawing?



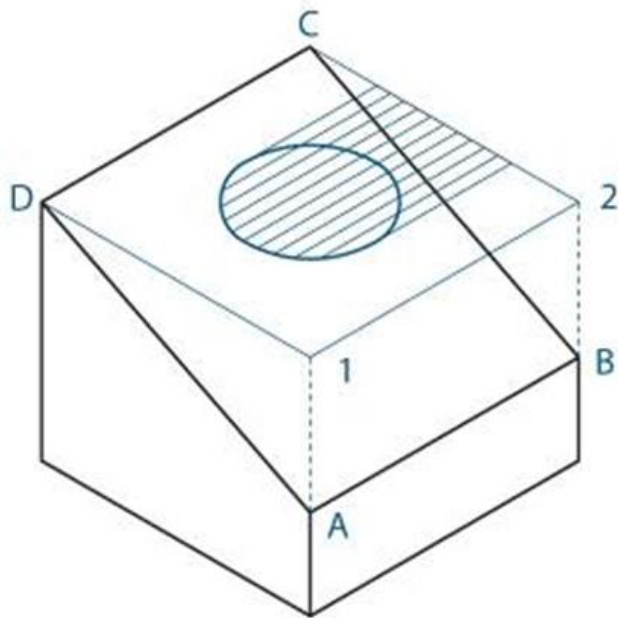
### 3. Ellipses on Inclined Surfaces



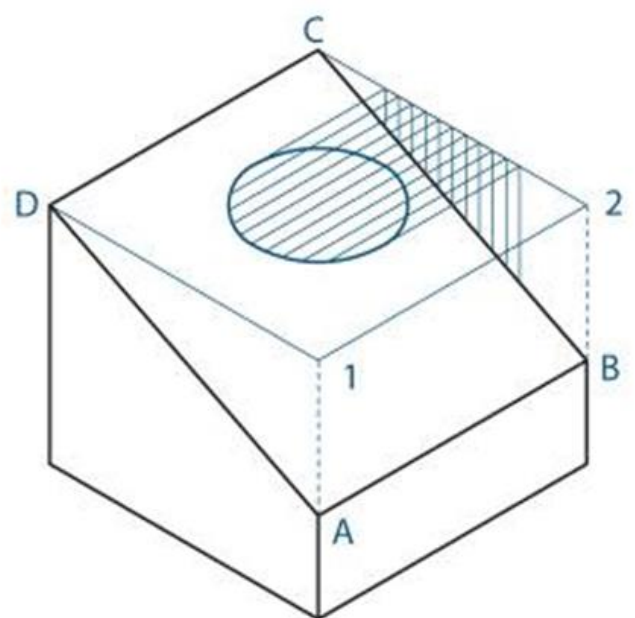
Step 1



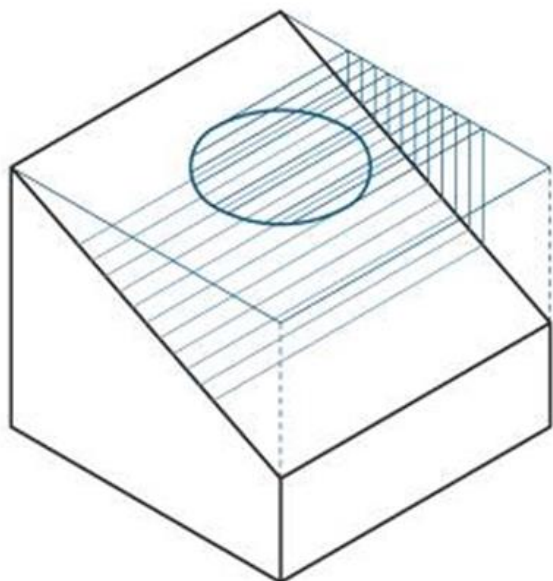
Step 2



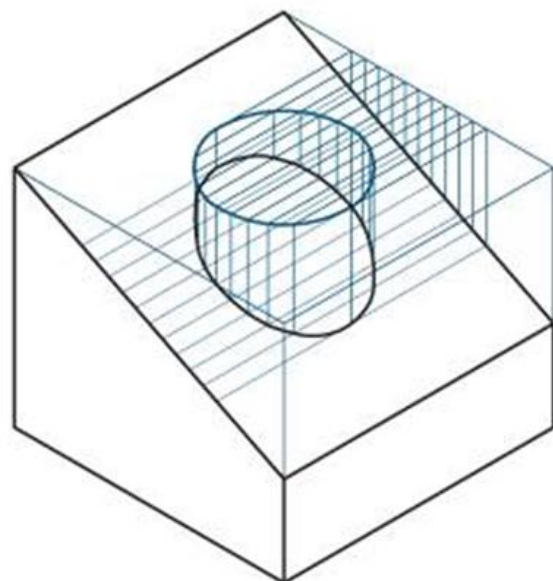
Step 3



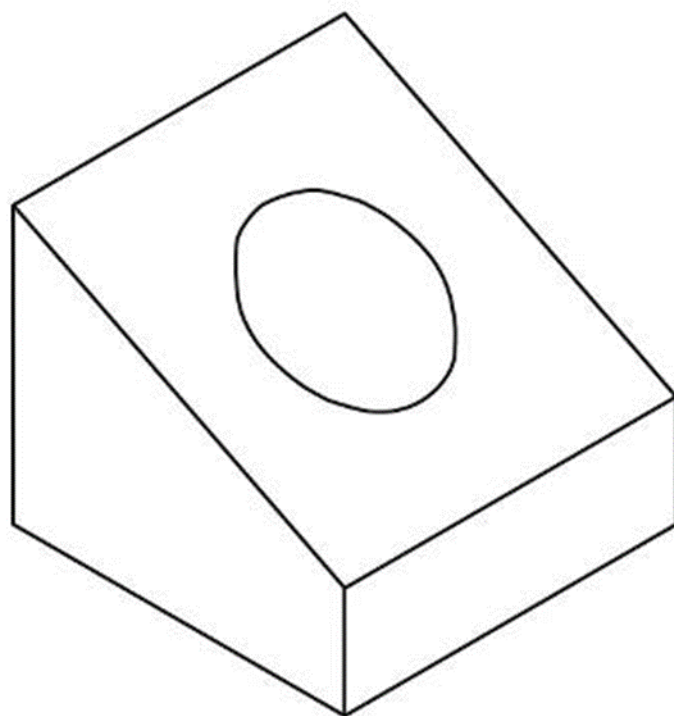
Step 4



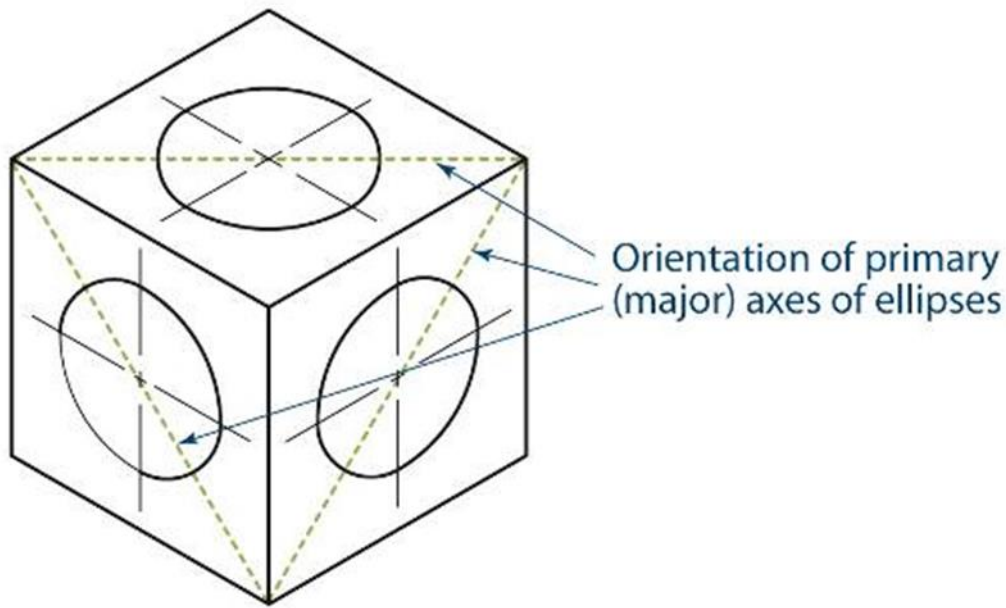
Step 5



Step 6



## 4.CYLINDRICAL SURFACES



**FIGURE 12.18.** An isometric cube showing ellipses on each face. Note the orientation of the long (major) axis for the ellipse on each of the three normal faces.

## 5.SECTION VIEW

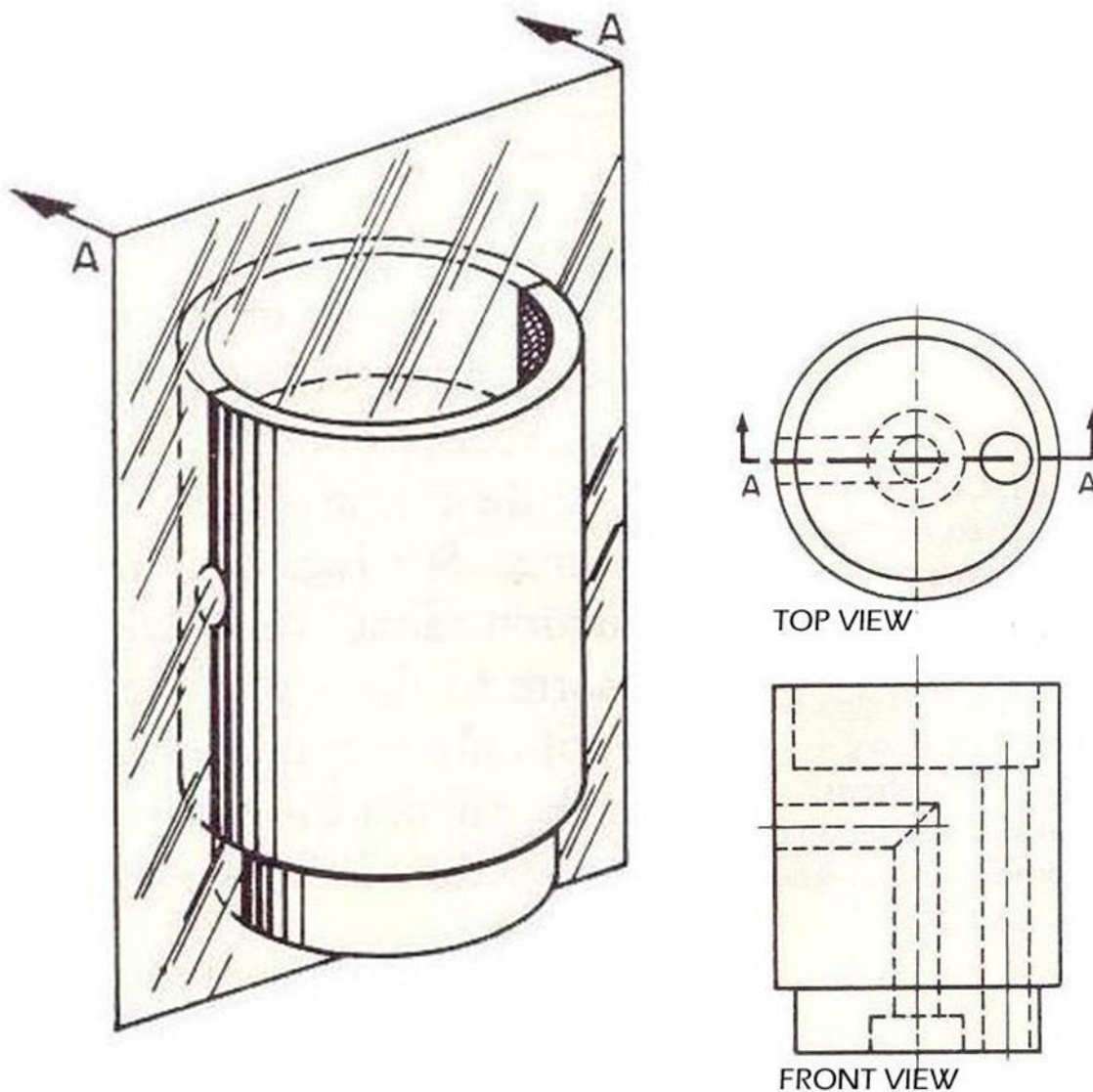
A section view is a view used on a drawing to show an area or hidden part of an object by cutting away or removing some of that object.

The cut line is called a “cutting plane”, and can be done in several ways.



# Full Section

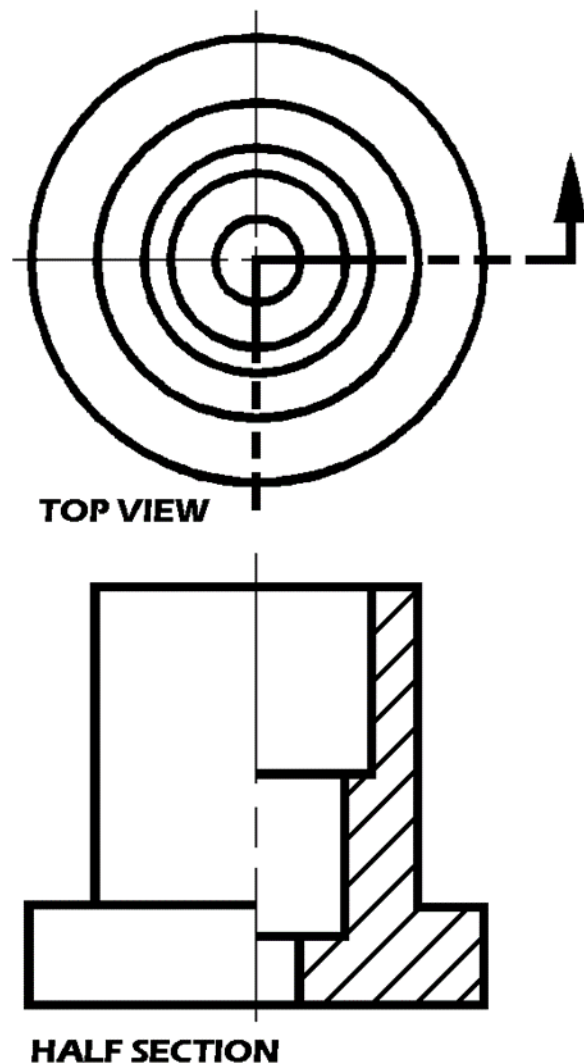
- In a full section, the cutting plane line passes fully through the part.
- Normally a view is replaced with the full section view.
- The section-lined areas are those portions that have been in actual contact with the cutting-plane.





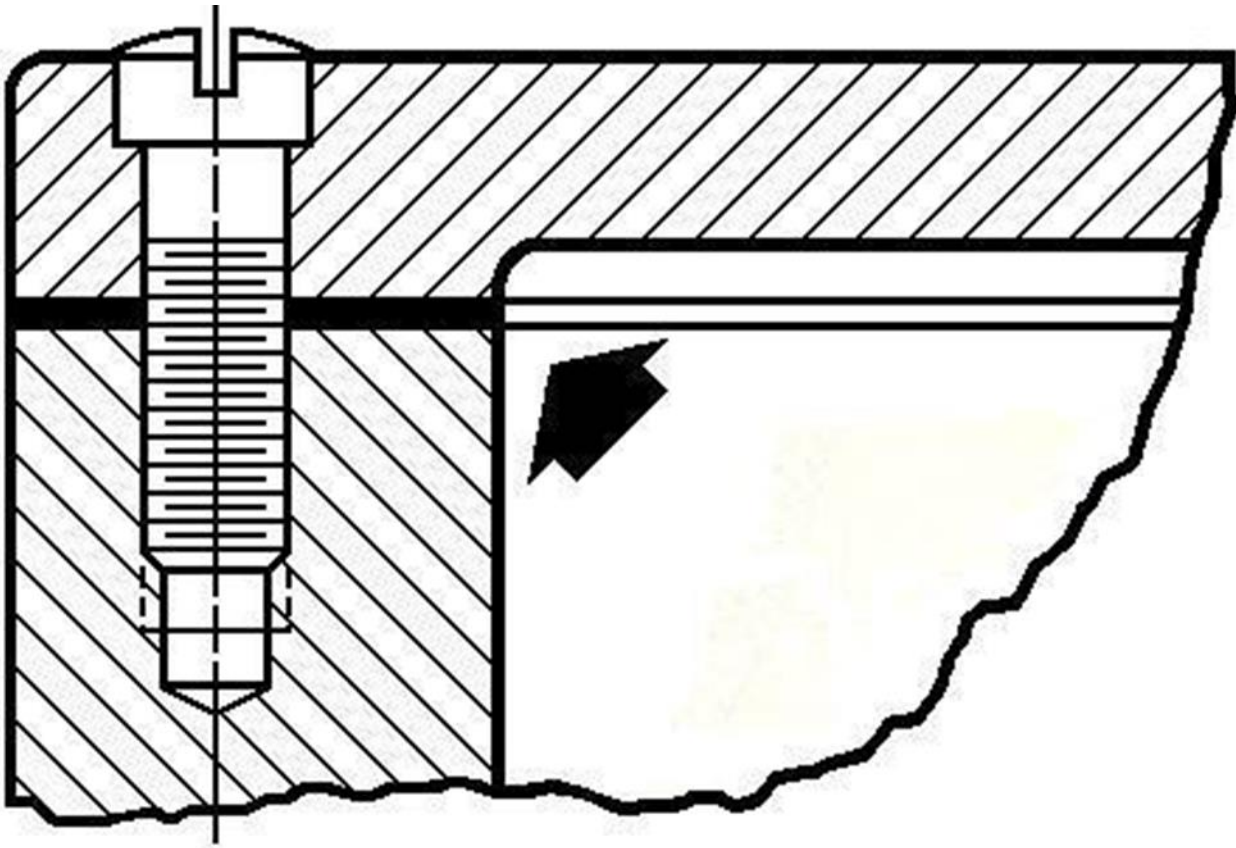
# Half Section

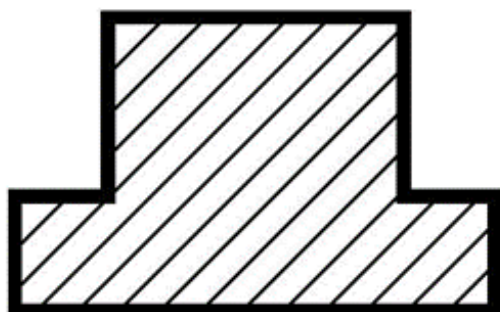
- Half Section is used to the exterior and interior of the part in the same view.
- The cutting-plane line cuts halfway through the part and removes one quarter of the material.
- The line that separates the different types (interior and exterior) may be a centerline or a visible line.



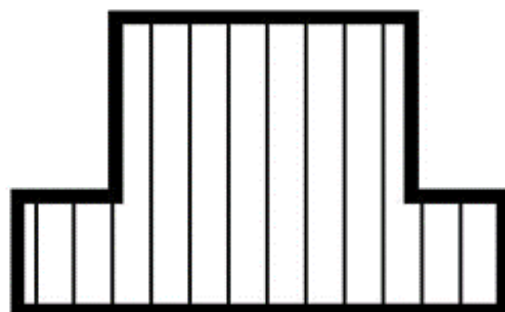
## Section Lining

- 45 degree angle lines should be used.
- 1/8" between lines.
- All lines should be uniformly spaced
- Thin sections may be blackened in completely
- Spacing lines by eye increases speed





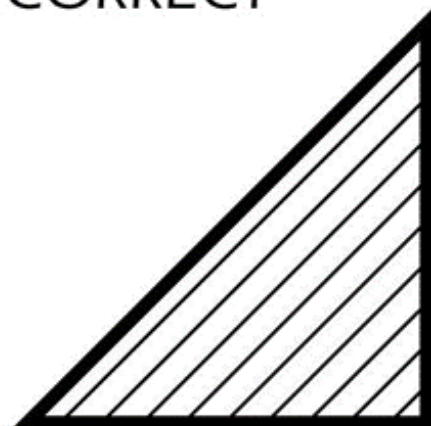
CORRECT



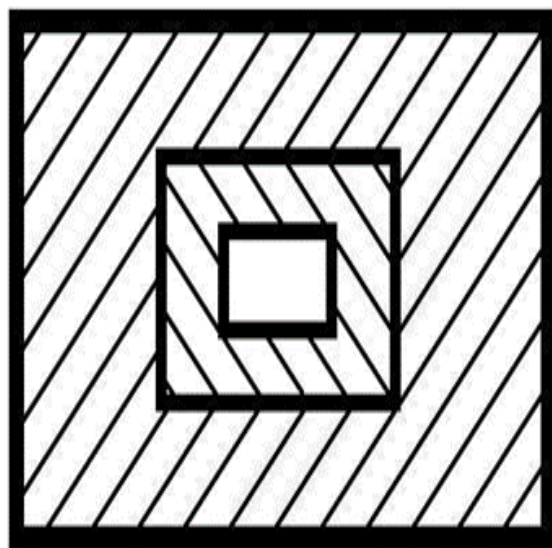
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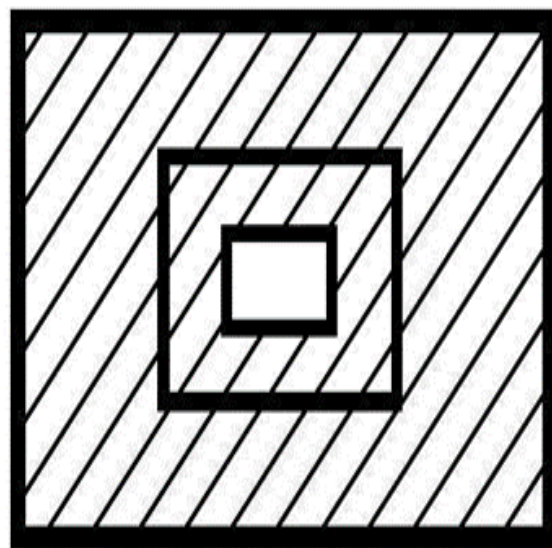
CORRECT



INCORRECT



CORRECT



INCORRECT

# EXAMPLE OF SECTION VIEW

