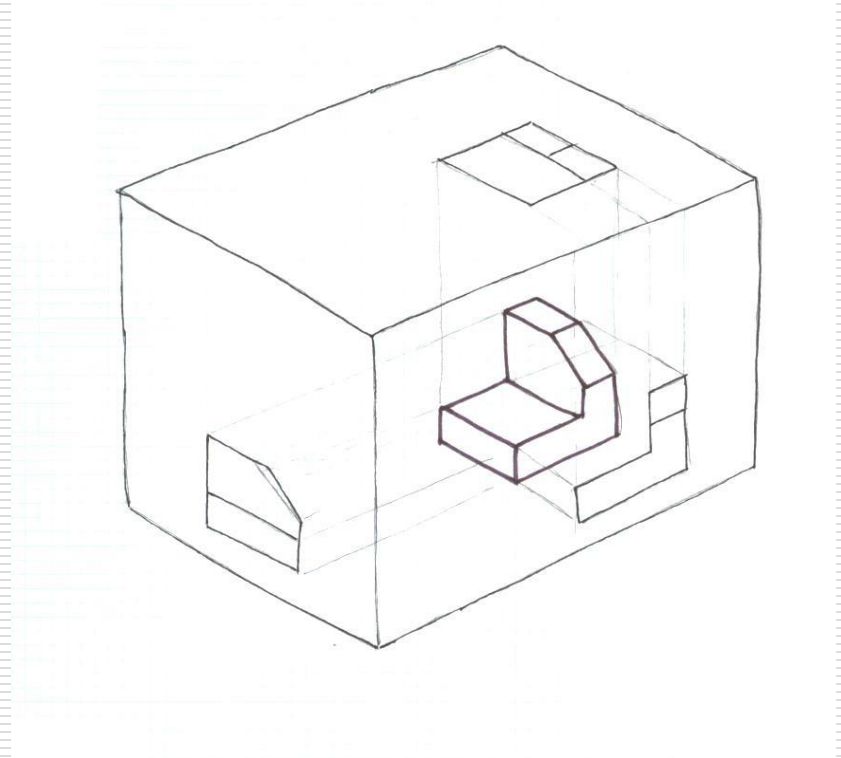


# Technical Graphics:

Multi-view drawing  
Standard Practice  
Conventional Practice

# Pictorial to Multi-view

- Visualize
- Projection



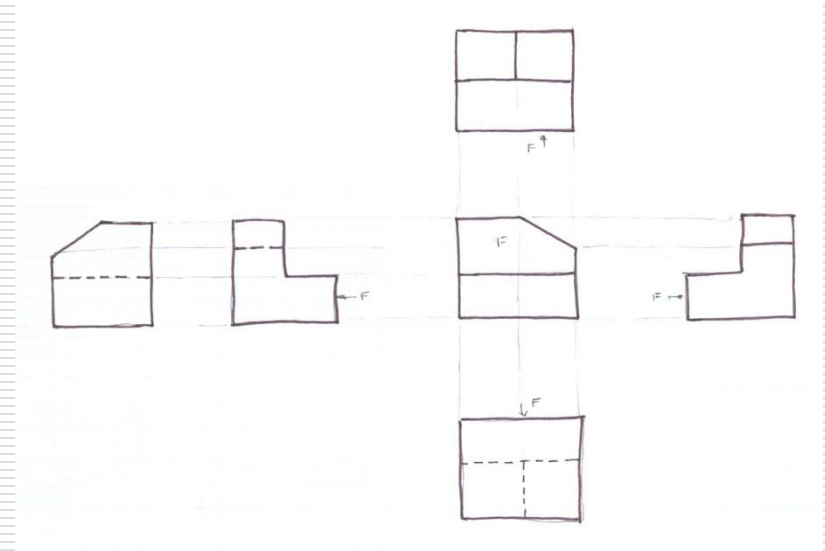
# Standard Orthographic Views

## □ Elevation Views

- Front / Back
- Right / Left

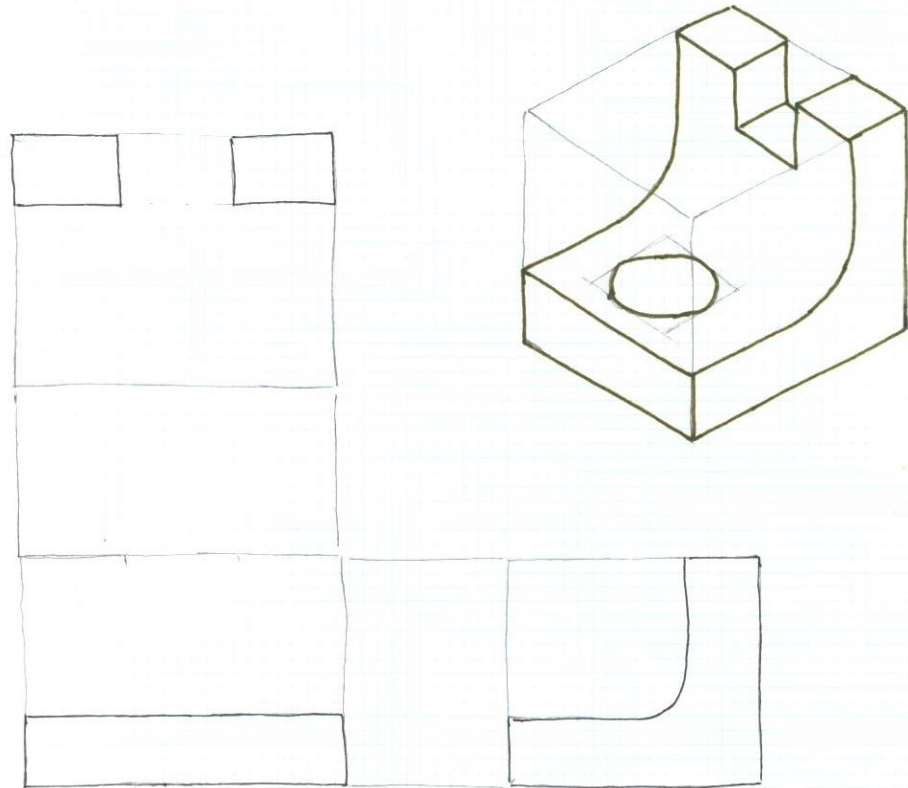
## □ Plan Views

- Top / Bottom



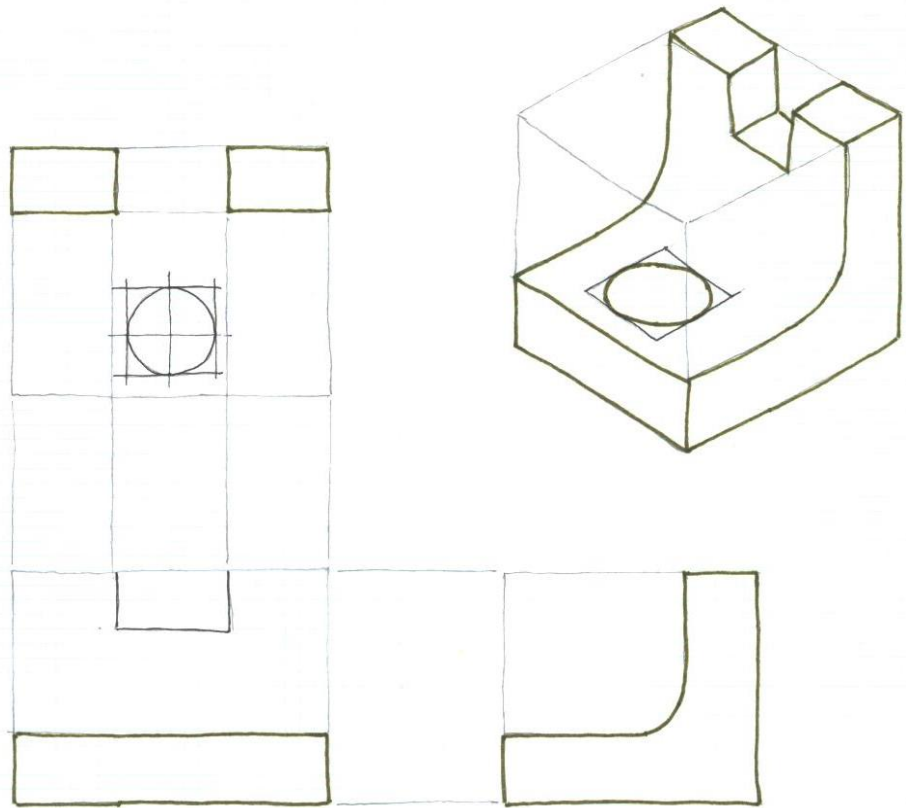
# Multi-view sketching: Step 1

- Plan
- Light construction
- "Obvious" Detail
- Step 2: Outline "obvious"



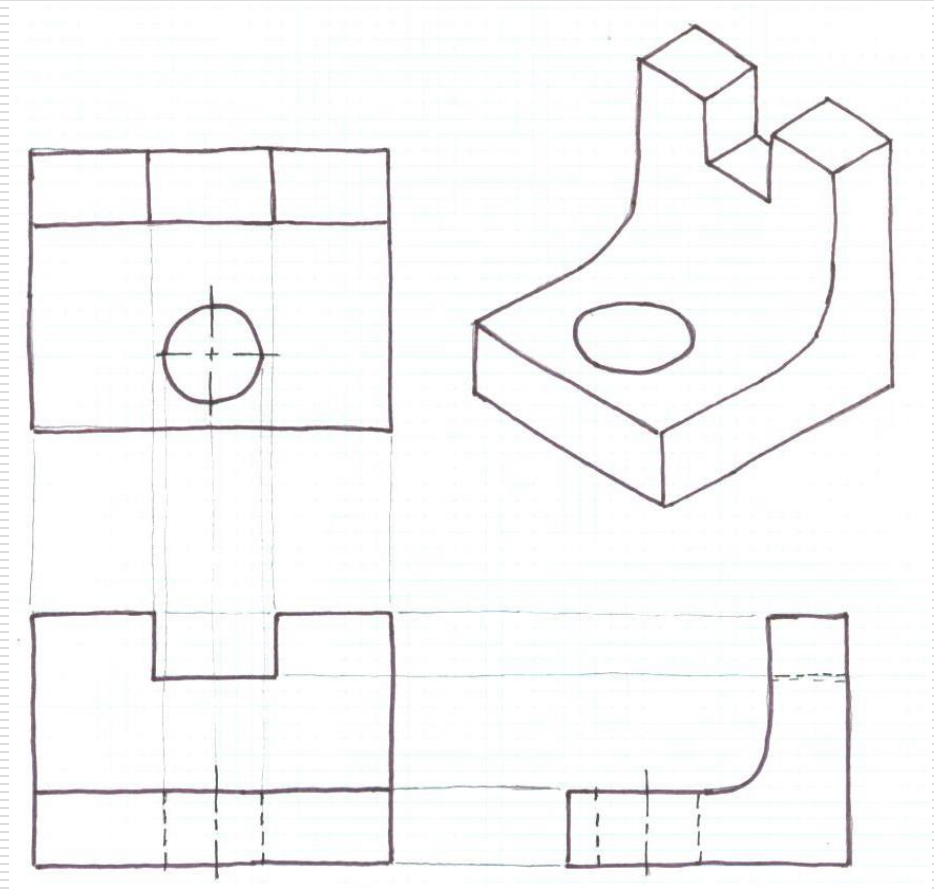
# Multi-view sketching: Steps 2

- Outline
- "Other" details
- Develop Drawing



# Multi-view sketching: Step 3

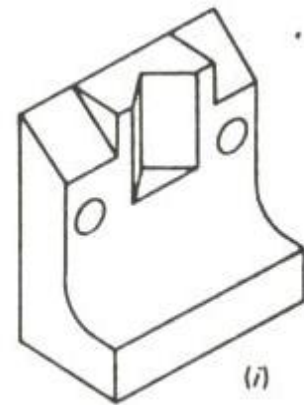
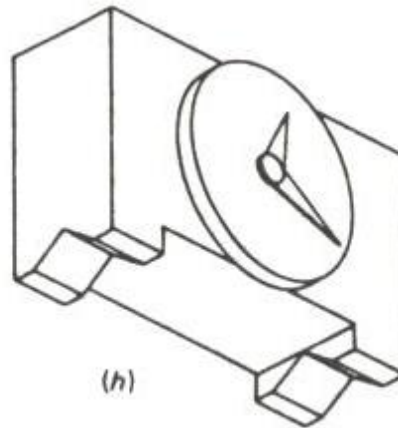
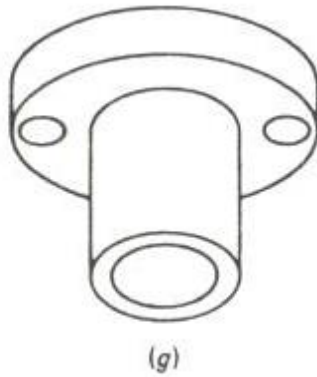
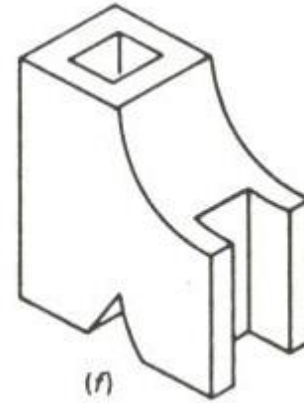
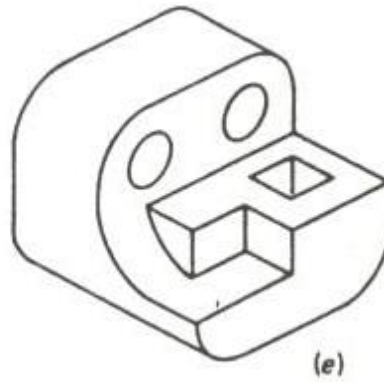
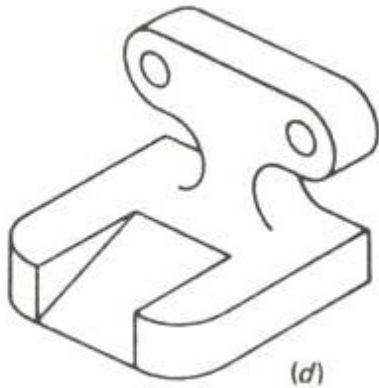
- Complete
- Linetypes
- Erase  
(minimum)



# Front View

- Orientation
  - Right View (Not Left)
  - Top View (Not Bottom)
  - Important Detail
    - Minimize Hidden Lines
  - Object's Orientation

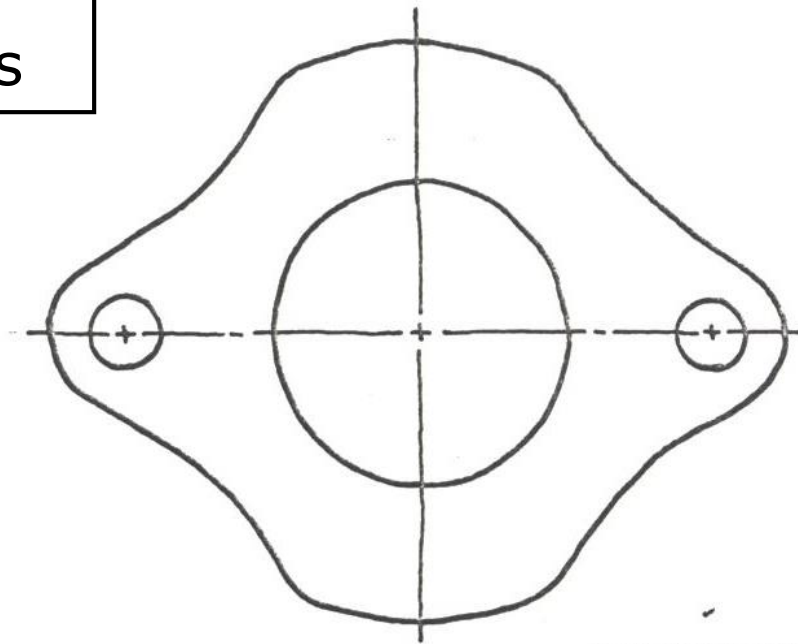
# Select the "best" Front View





# How Many Views?

- Single View
- Note thickness



THICKNESS = 2.5 mm

FIGURE 9.12

# How Many Views?

- Two View
  - Axial Symmetry

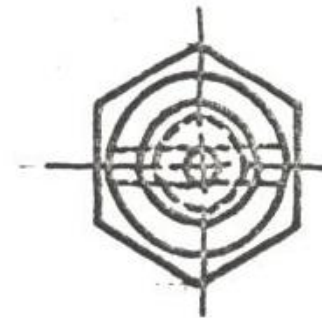
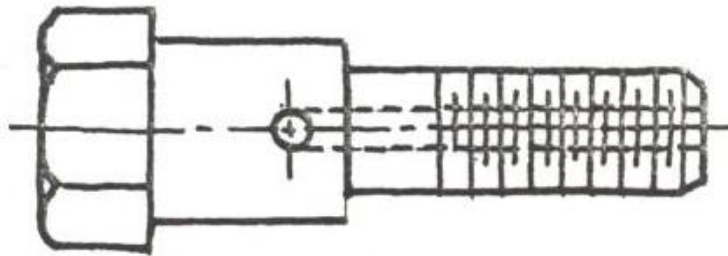
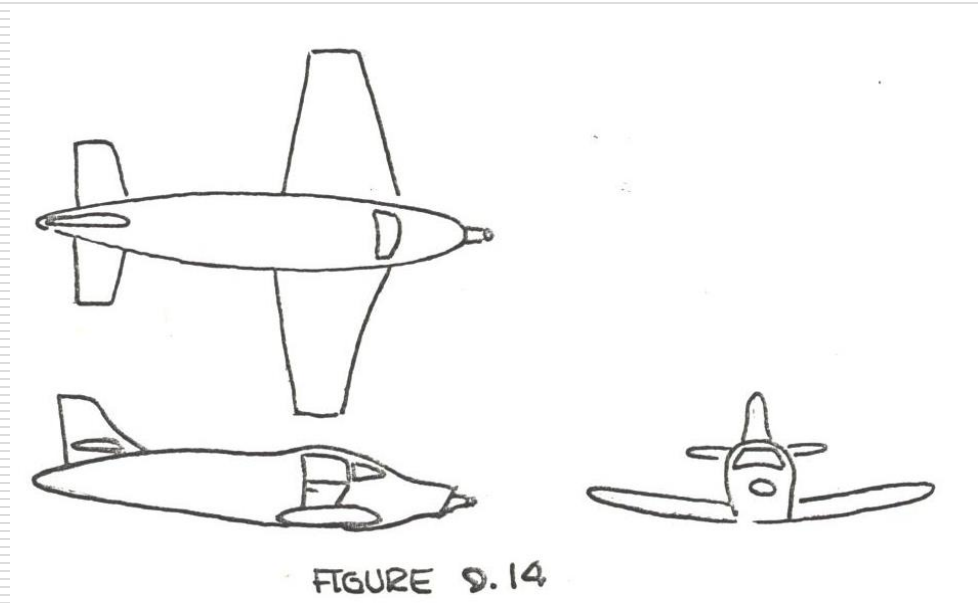


FIGURE 9.13

# How Many Views?

- Three Views
  - Visualization
- Or More
  - Details



# Select the best / necessary views

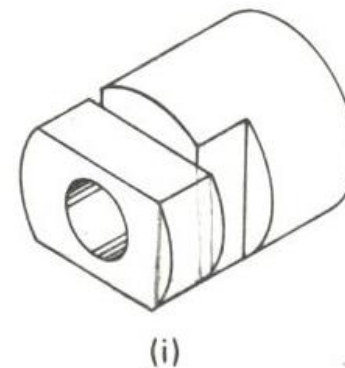
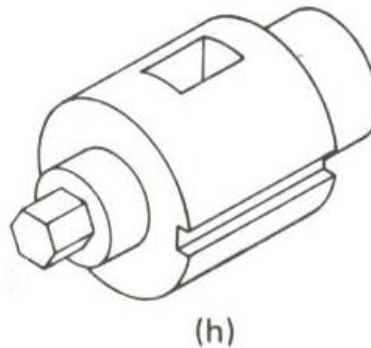
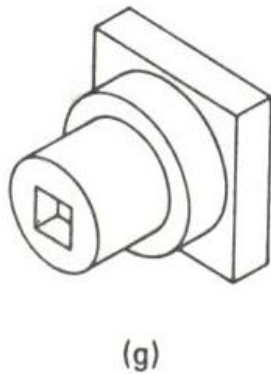
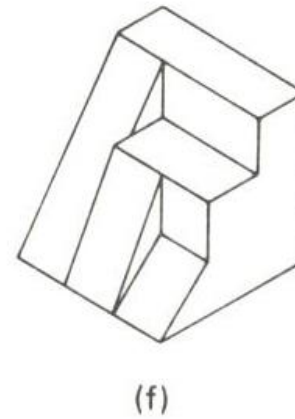
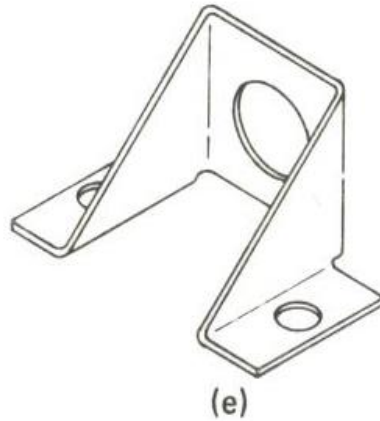
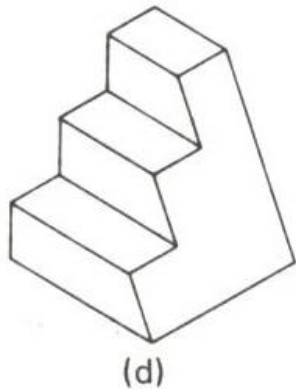
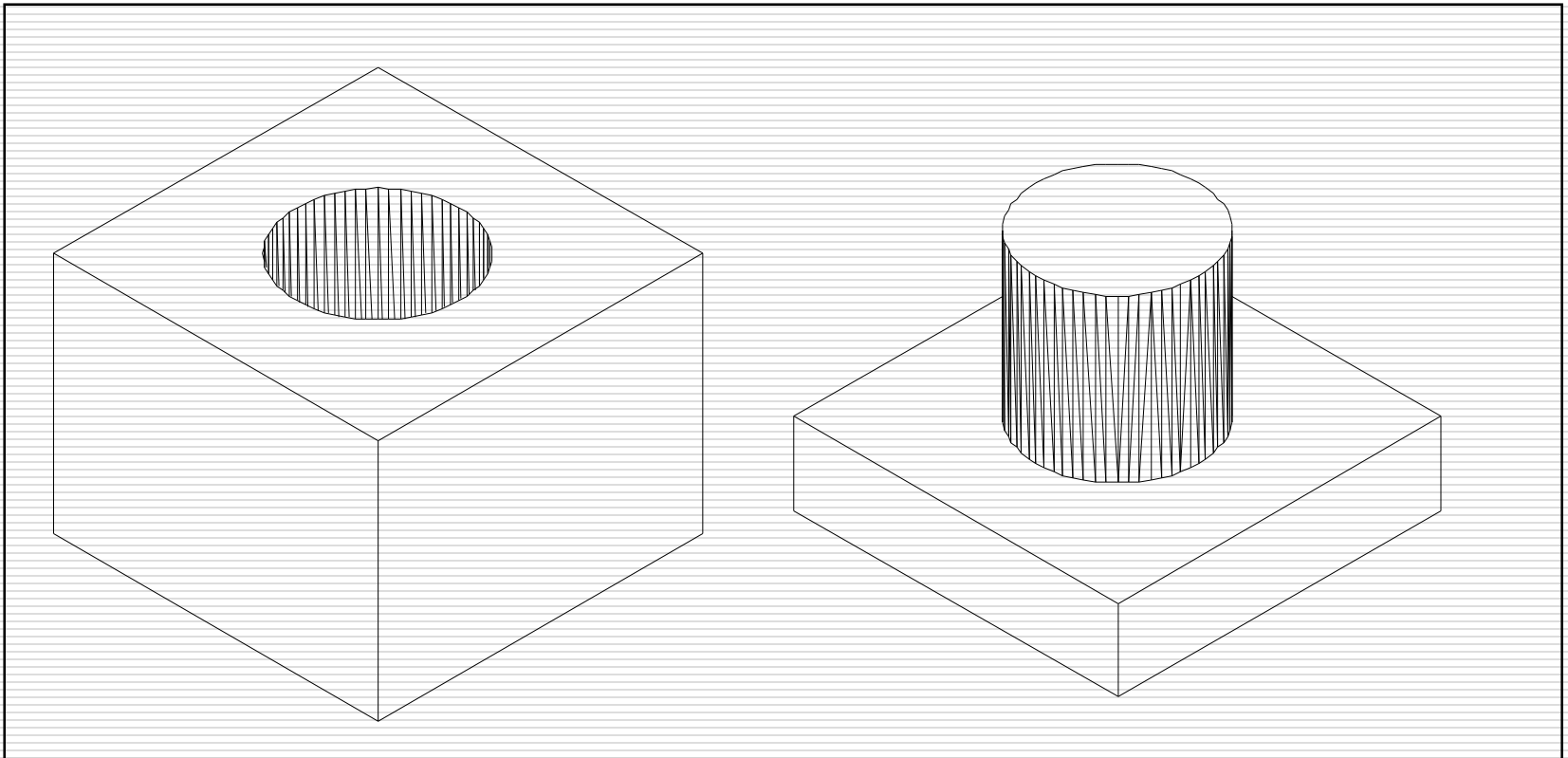


Figure 14.15.

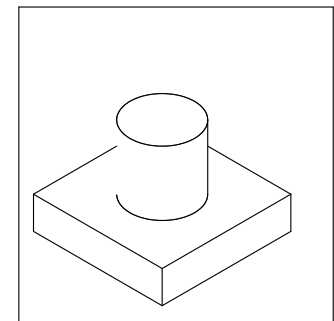
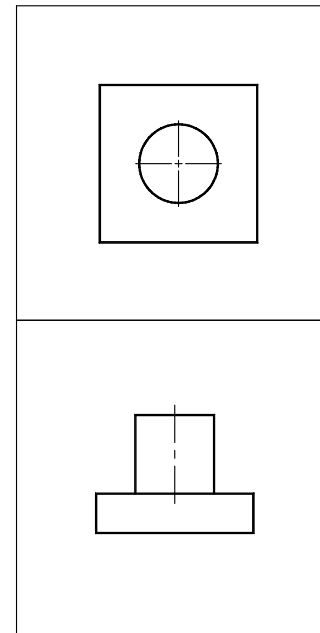
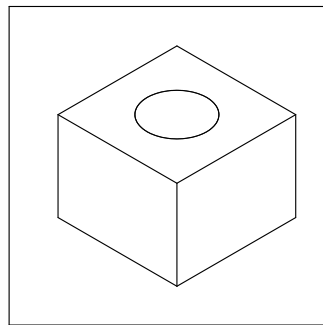
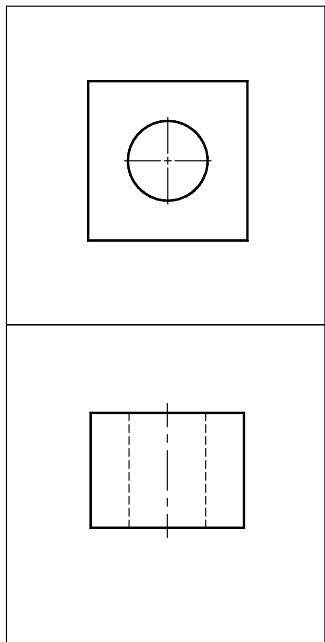
# Circular Features

Holes

Cylinders

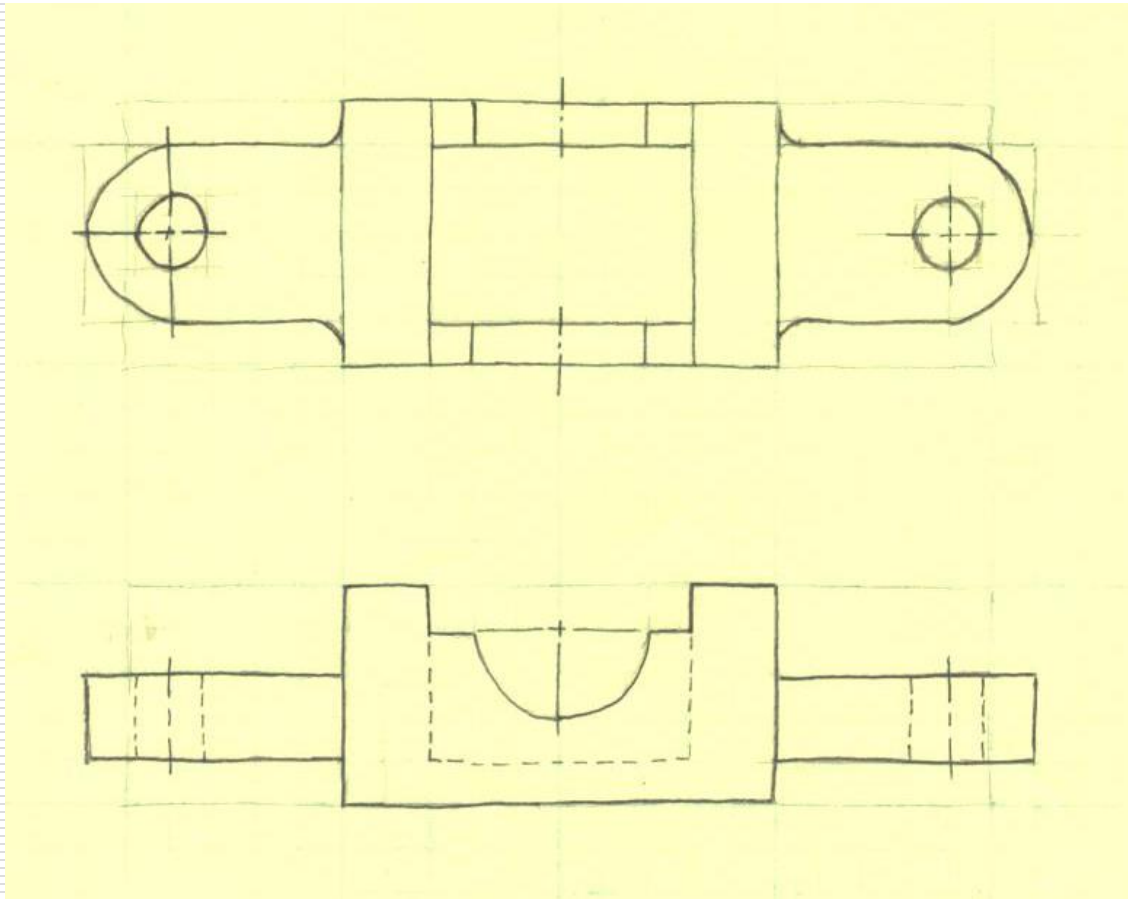


# Circular Features / Center Lines



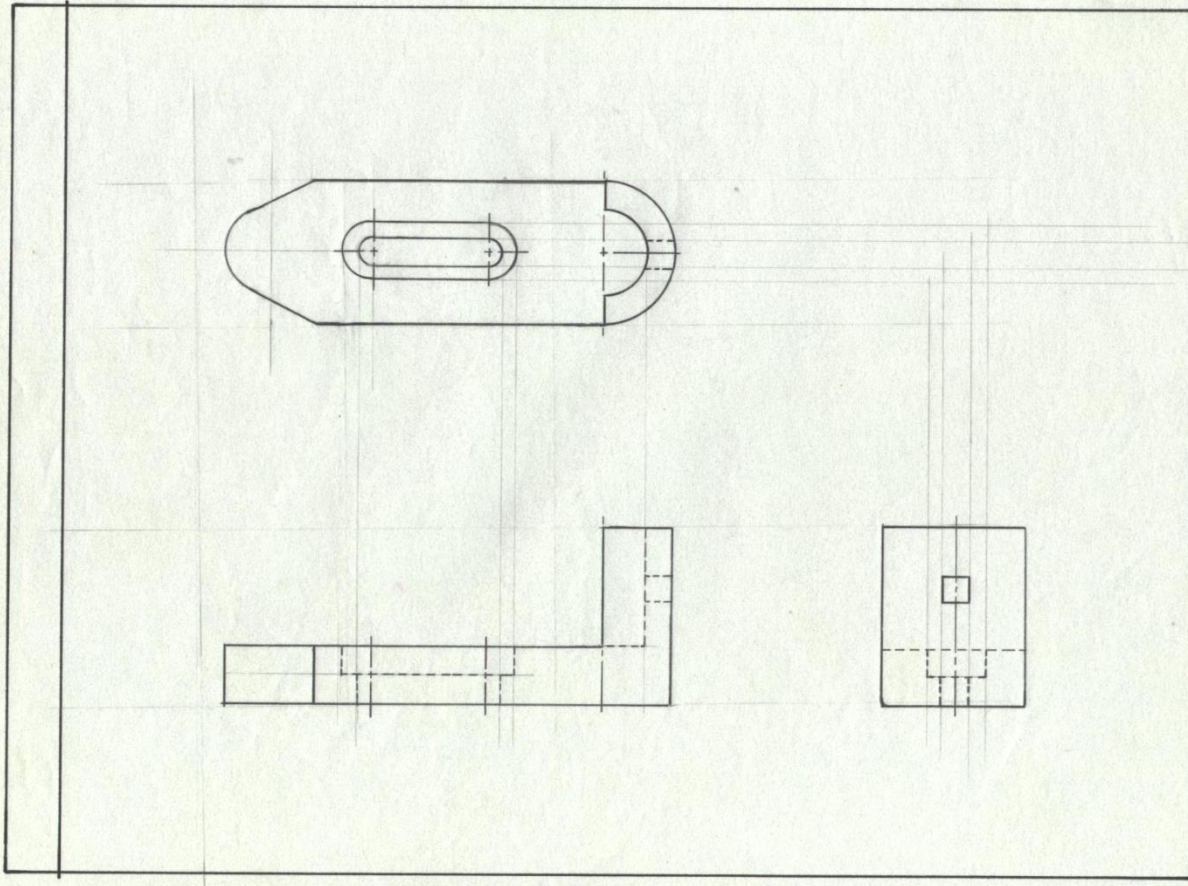
# Example: Center / Hidden Lines

Note: Centerline options



# Example: Center / Hidden Lines

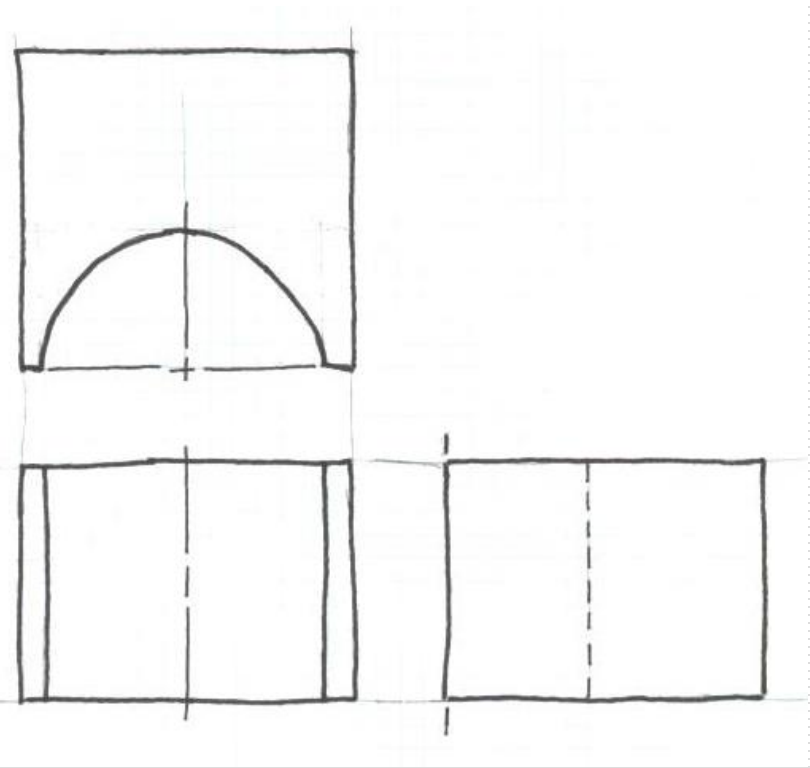
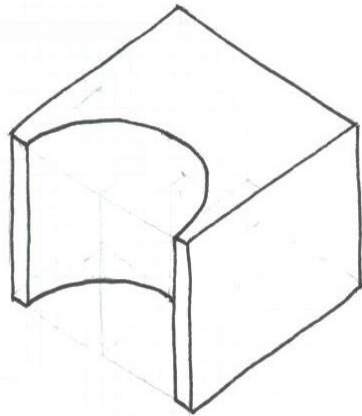
Find missing center mark / line





# Line Precedence / Priority

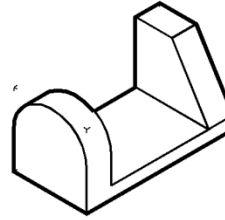
- ❑ Object Lines (Highest)
- ❑ Hidden Lines
- ❑ Center Lines (Lowest)



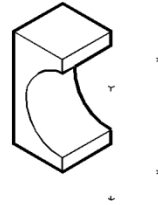
# Gr 1.6a

---

1. Draw Front, Top, and Left Views.



2. Draw Front, Top, and Right Views.

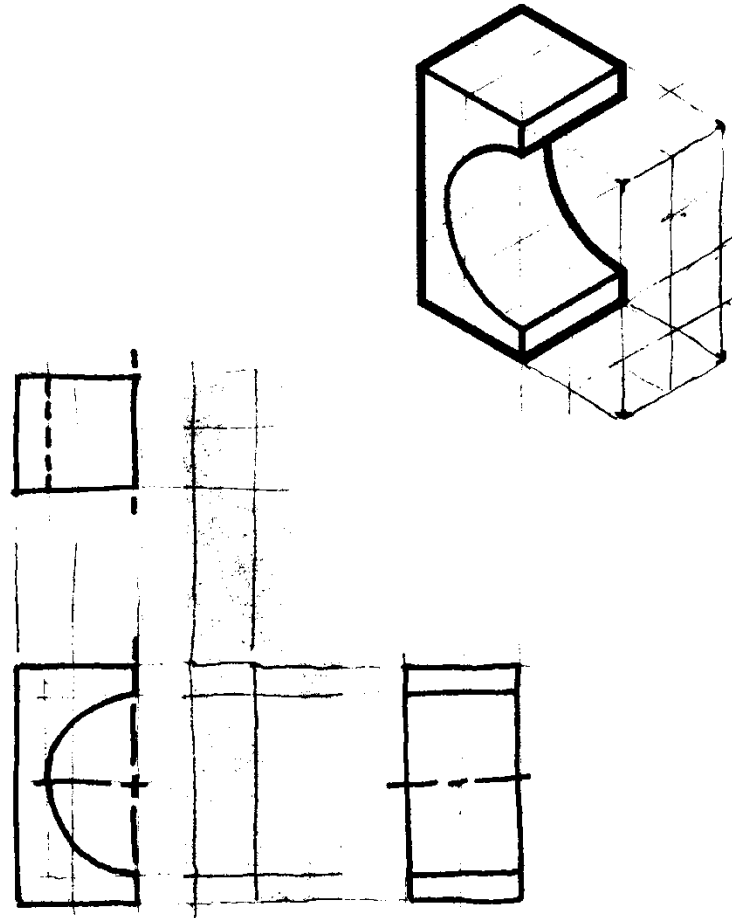


NOTES:

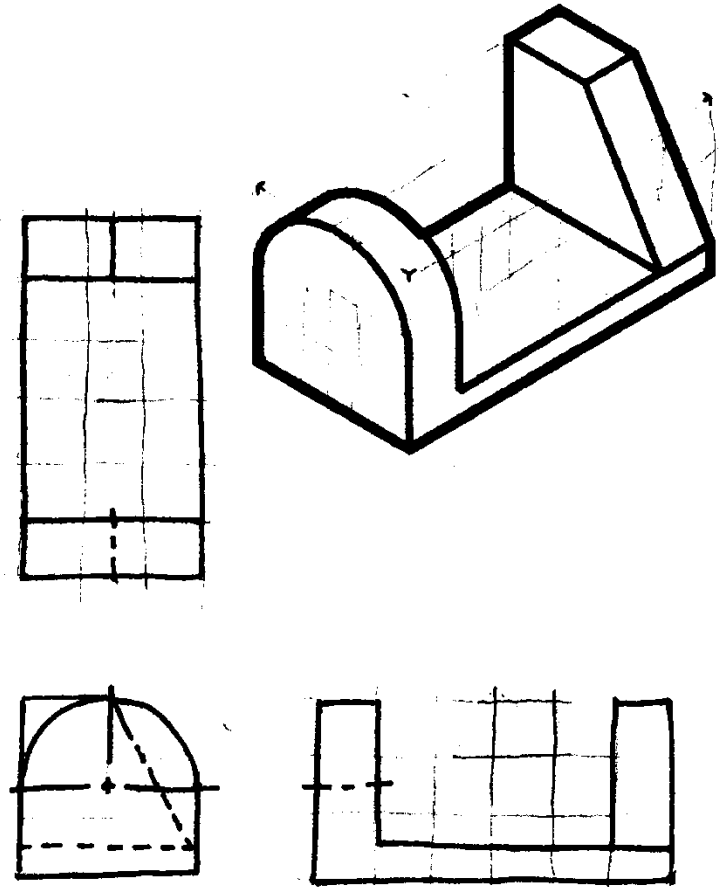
|       |       |                      |           |         |
|-------|-------|----------------------|-----------|---------|
| DATE: |       | TITLE: Drawing Views | PROB:     | GRADE   |
| NÓ.:  | SEC.: | INSTR.: jcs          | 1.6a      |         |
|       |       | DR. BY:              | REV. NO.: | 05-0818 |

# Gr 1.6a: Solution

4. Draw Front, Top, and Right Views.

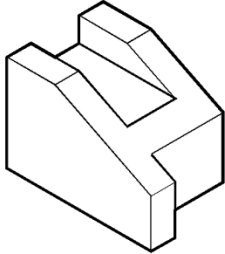


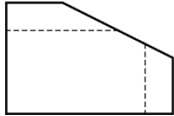
5. Draw Front, Top, and Left Views.



# Gr 1.6b

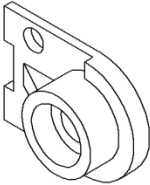
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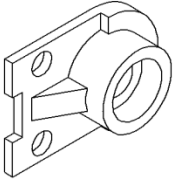




1. GIVEN THE FRONT AND ISOMETRIC VIEWS, SKETCH THE TOP AND RIGHT VIEWS USING STANDARD PLACEMENT AND ALIGNMENT

3. Draw Front and Top Views

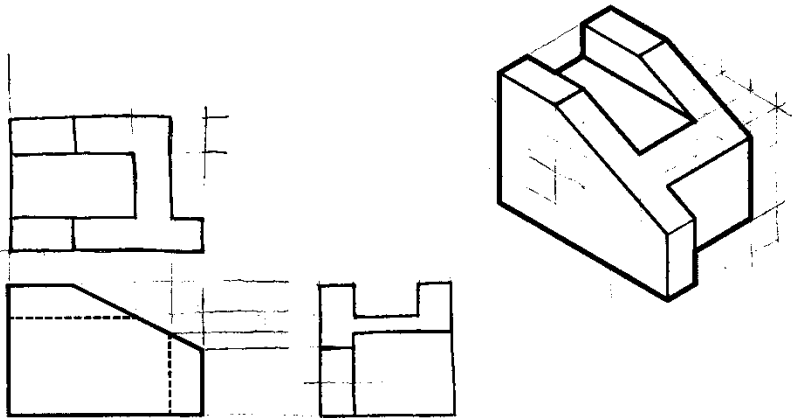




NOTES:

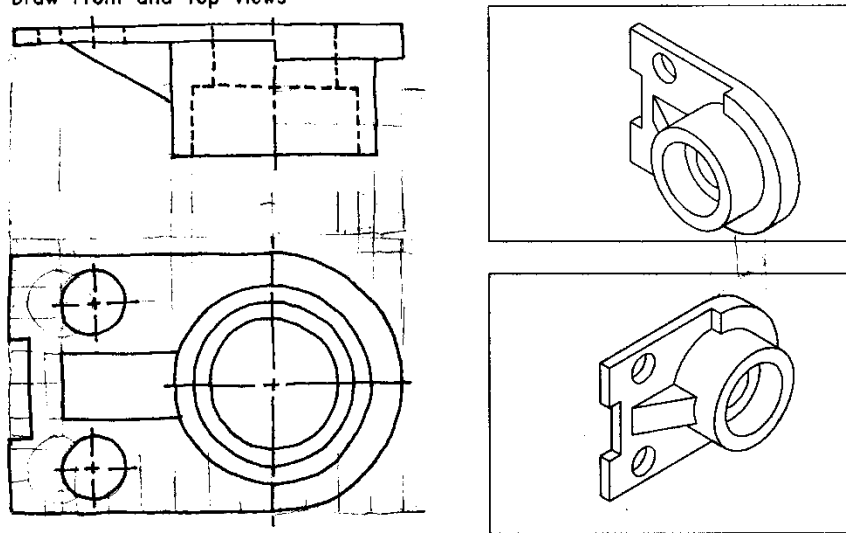
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|-------|-------|----------------------|---------|-------------------|
| DATE: | SEC.: | TITLE: Drawing Views | PROB.:  | GRADE:            |
| NO.:  |       | INSTR.: jcs          | DR. BY: | 1.6b              |
|       |       |                      |         | REV. NO.: 09-0818 |

# Gr 1.6b: Solution



1. GIVEN THE FRONT AND ISOMETRIC VIEWS, SKETCH THE TOP AND RIGHT VIEWS USING STANDARD PLACEMENT AND ALIGNMENT

3. Draw Front and Top Views



The completed drawing shows the front view (top left), top view (bottom left), and isometric view (right side) of the mechanical part. The front view shows a stepped profile with a sloped top surface. The top view shows a rectangular shape with a circular feature and two small circles. The isometric view shows the 3D form of the part.