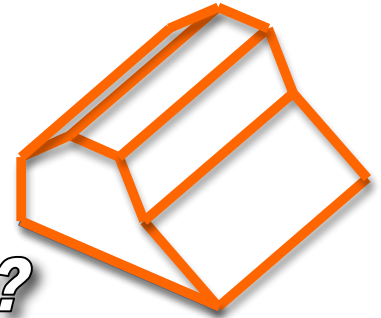




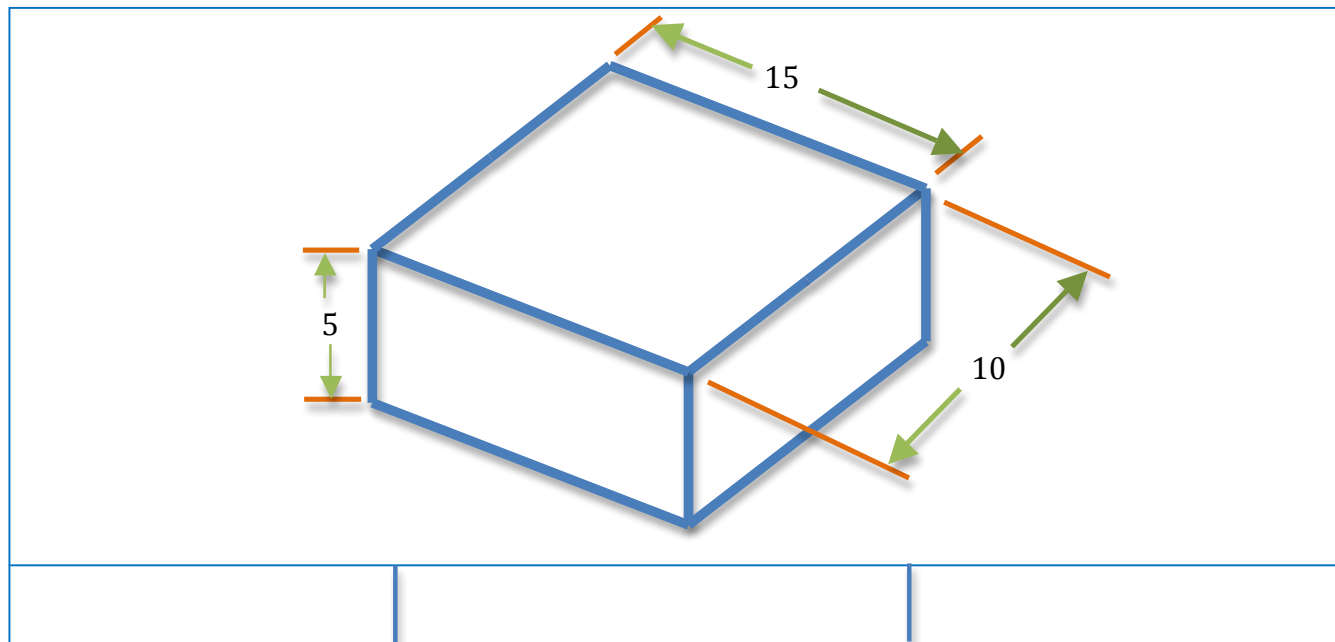
Stuyvesant High School  
Technology Department  
Instructor: Mr. Griffith

Basic Technical Drawing  
Mechanical drawing



**AIM:**

***How to center an isometric drawing?***



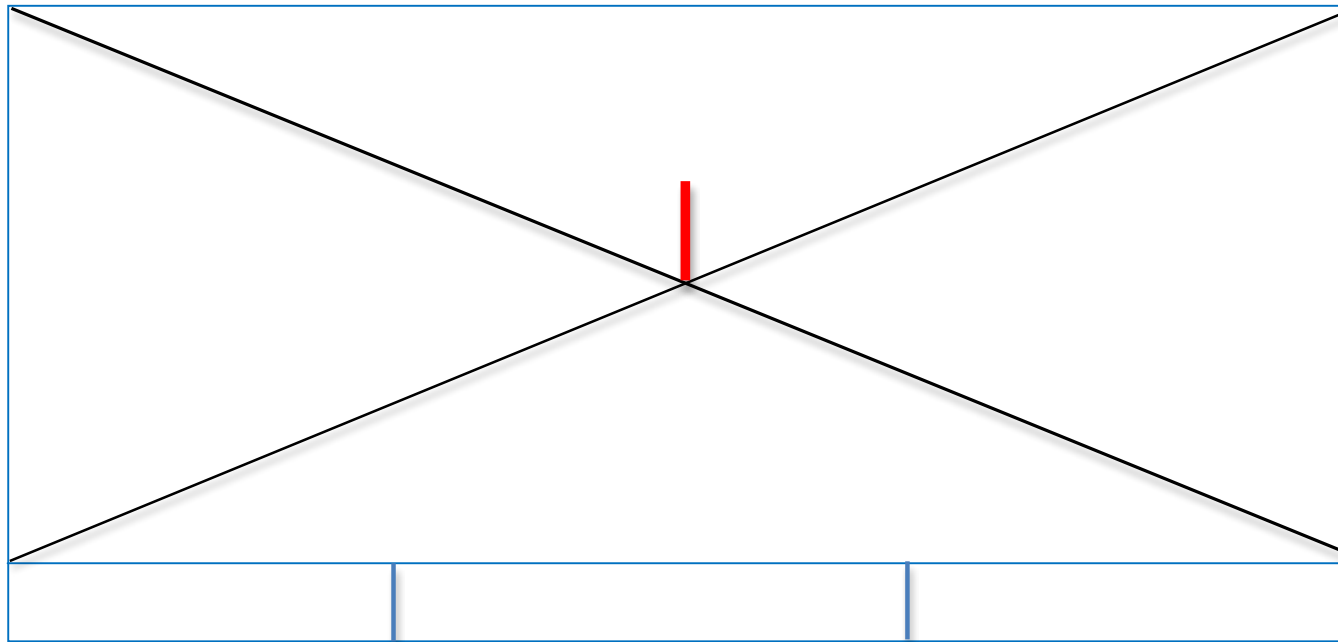
**Centering an isometric drawing:**

When centering an isometric drawing the drafter will need to know:

1. The over all size of the object in the drawing.

2. The center of the drawing space.

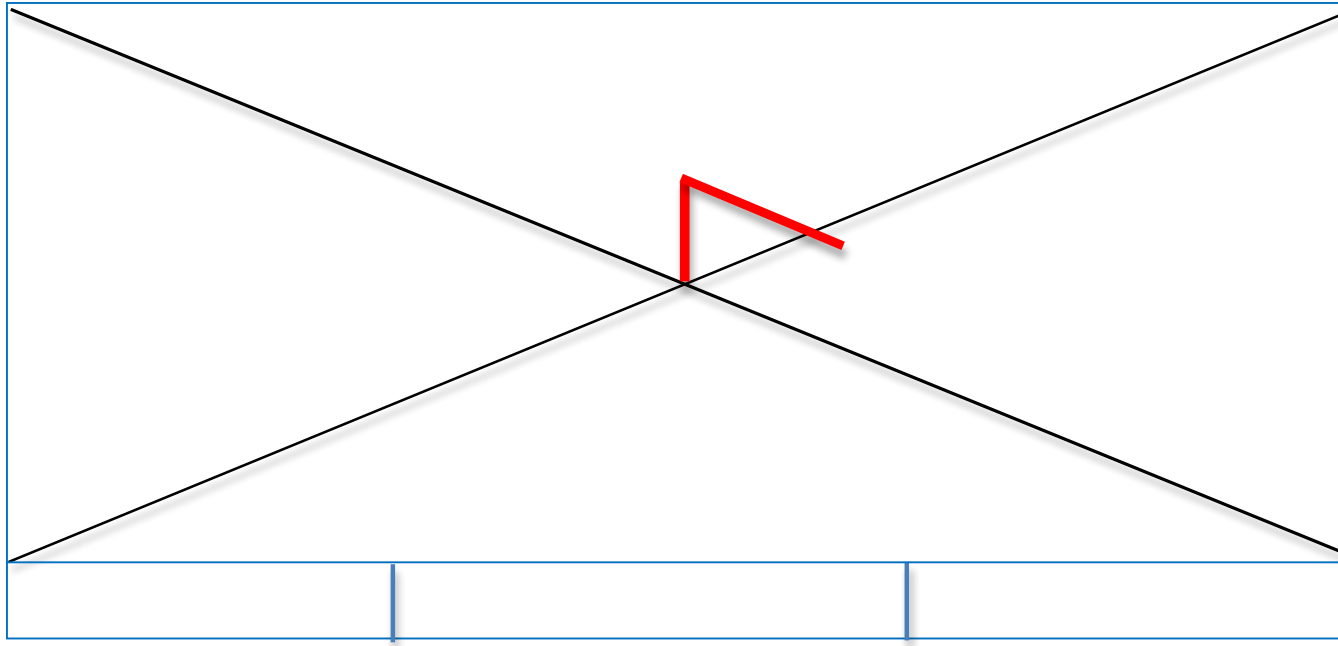
To center an isometric image you will need to use your 30, 60, 90 triangle.



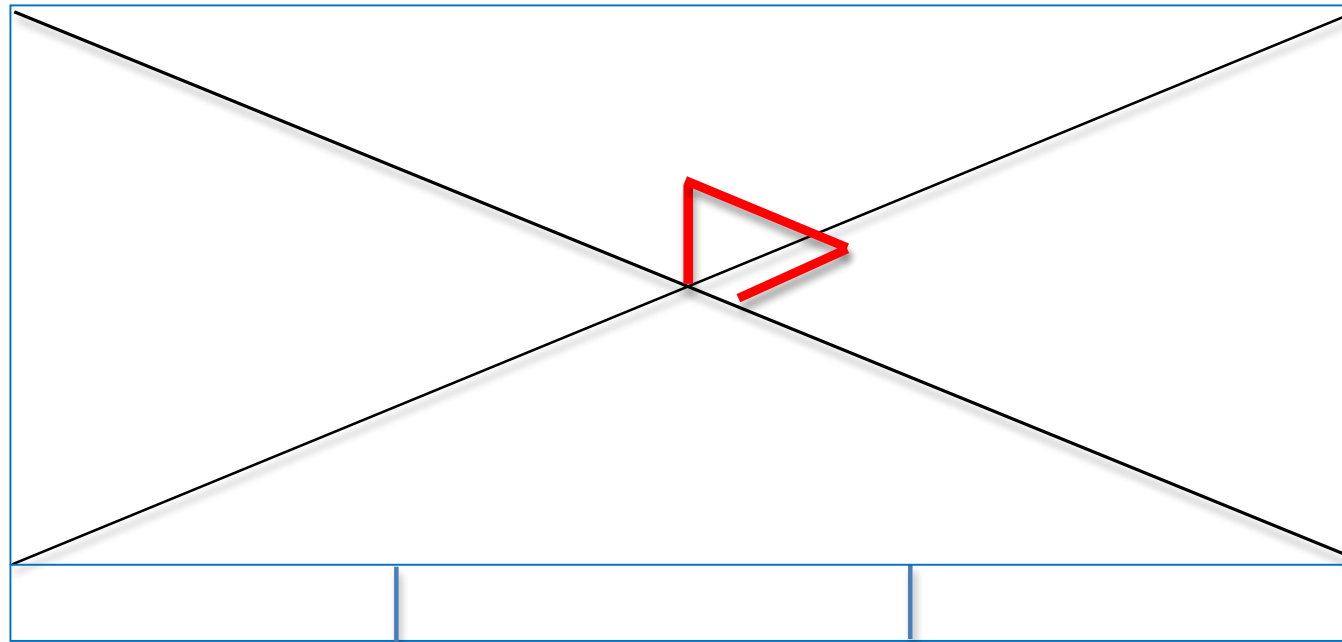
After centering the drawing space, the overall size of the object must be divided by two.

This means:

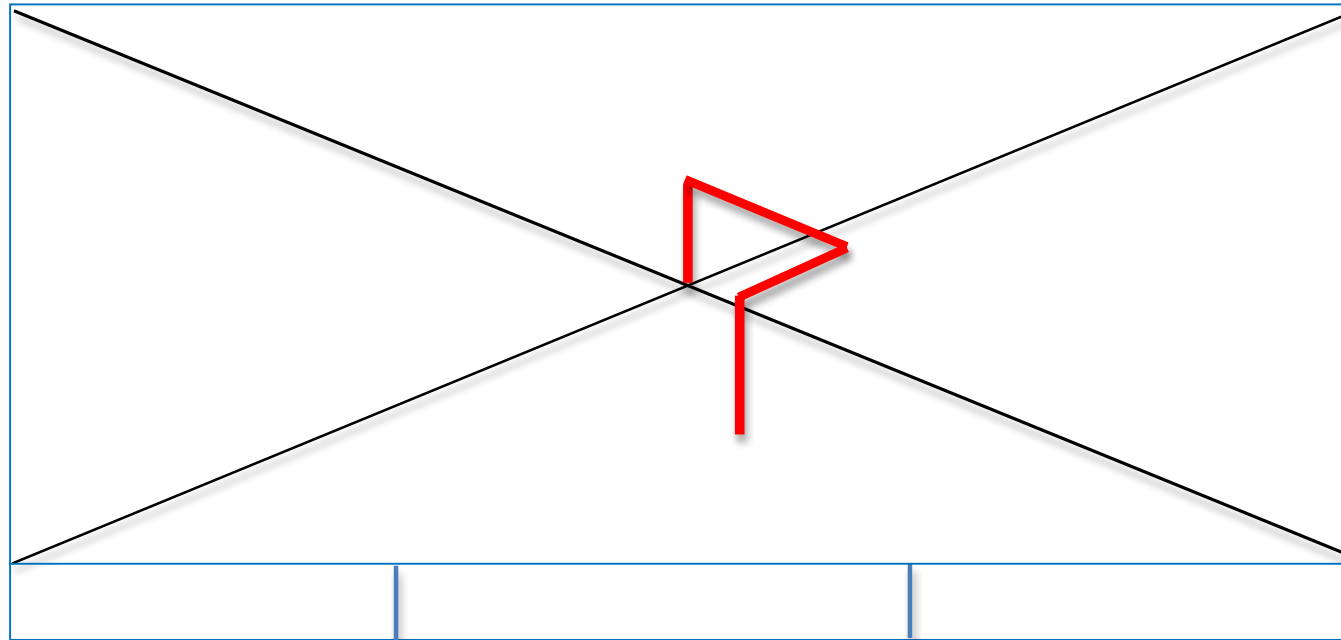
1. The overall height of 5 inches is divided by 2.  
So at the center of the drawing space measure up 2.5-inches from the center of the drawing space.



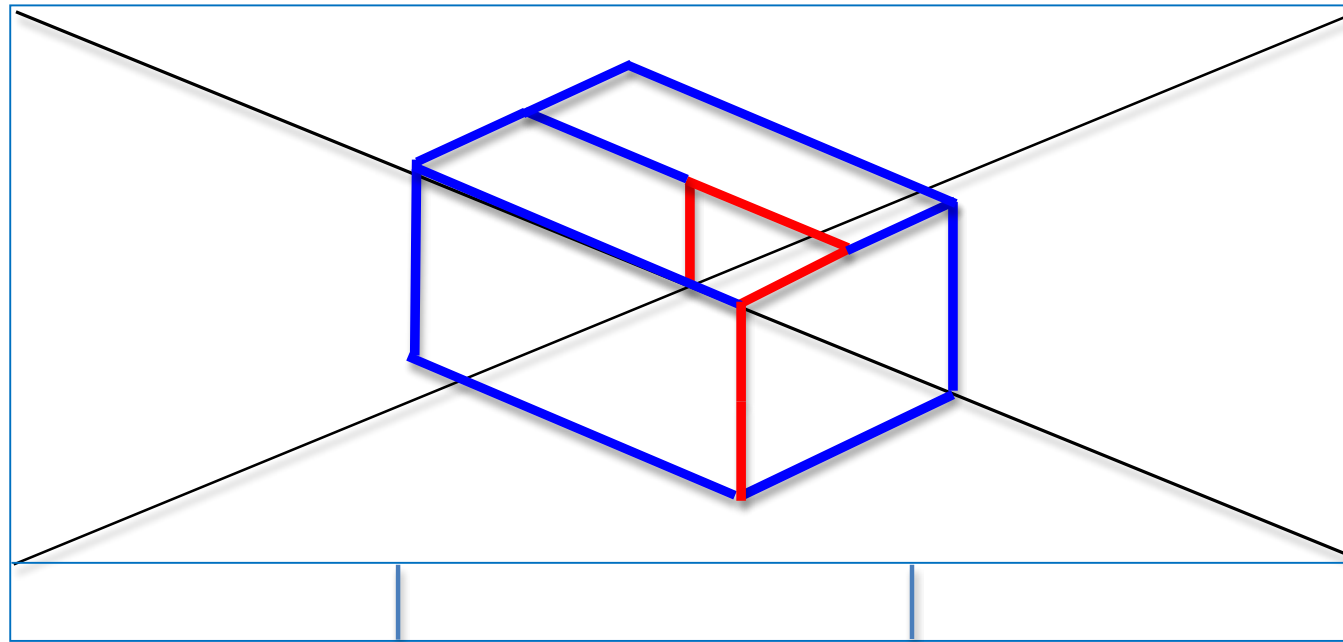
2. The overall width of 15 inches, is divided by 2. Use your 30,60, 90 triangle and layout  $30^{\circ}$  to the horizontal and draw a 7.5 inch line towards the right from the height of the object.



3. The overall depth of 10 inches is divided by 2. Use your 30,60, 90 triangle and layout  $30^0$  to the horizontal and draw 5 inch line towards the front of the object.

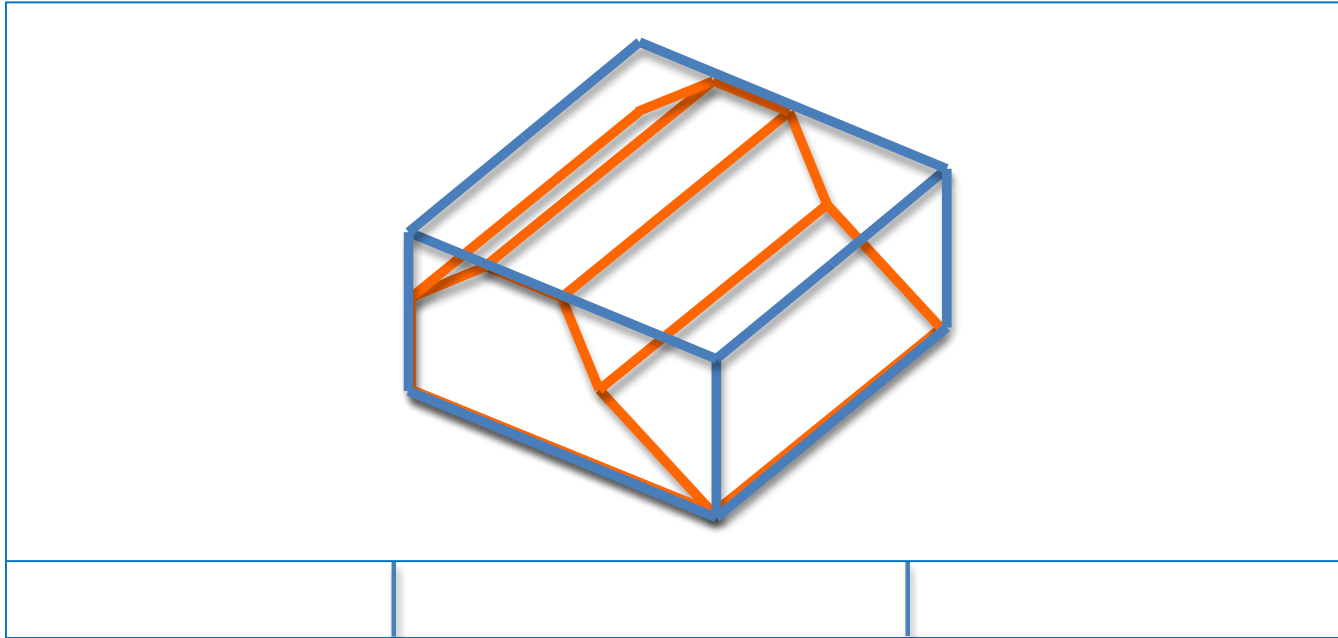


4. At this point you can draw the full height of the object. This is the basic construct that will lead to the development of the isometric drawing. If the measurements are correct your drawing will be perfectly centered in your drawing space.



5. You can now complete the isometric cube by drawing the remainder of the sides using your 30,60,90 triangle and your architects' scale.

6. Remove your guide lines and proceed to draw your object inside the isometric prism.



7. Remove the isometric prism when the drawing is complete.

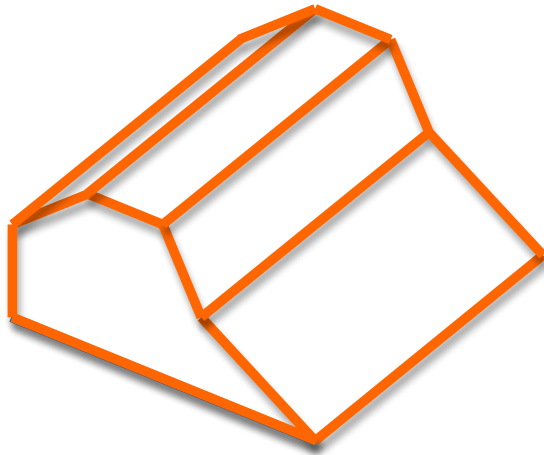
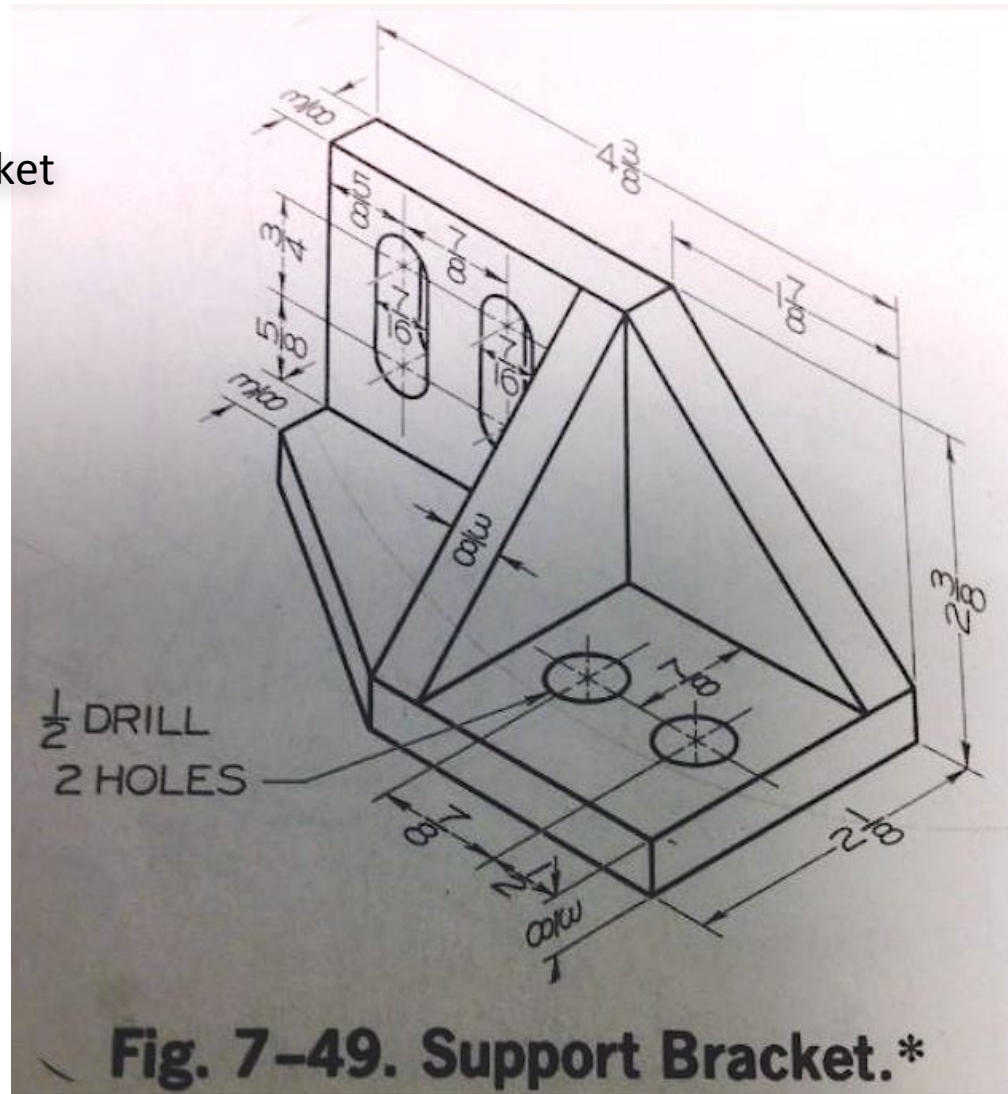


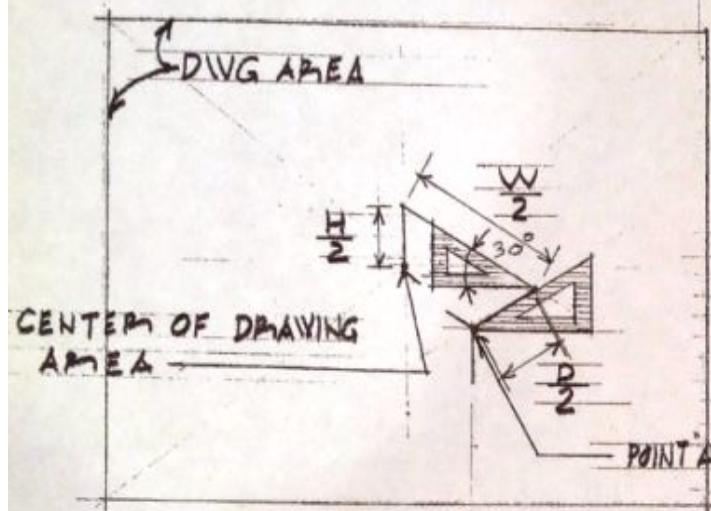


Plate 3:

Project name: Support Bracket

Scale 1:1



ISOMETRIC CENTERING

1. CALCULATE H, W, & D  
2. FIND HALF OF H, W, D

3. LOCATE CENTER OF DWG. AREA

4. MEASURE UP FROM CENTER  $\frac{H}{2}$

5. LAYOUT  $\frac{W}{2}$  @  $30^\circ$  TO THE HORIZONTAL TO THE RIGHT

6. LAYOUT  $\frac{D}{2}$  @  $30^\circ$  TO THE HORIZONTAL TO THE LEFT TO CREATE POINT "A"

7. LAYOUT FULL WIDTH TO THE LEFT FROM POINT "A"

8. LAYOUT FULL DEPTH TO THE RIGHT

9. LAYOUT FULL HEIGHT DOWN.

10. COMPLETE ISOMETRIC BOX

11. VERIFY EQUAL HORIZONTAL & VERTICAL CENTERING

