## Bracket Drawing- Hand Drafting Review

Directions:
1. Review the Bracket Drawing below. Look at the shape, the dimensions, and the notes. Visualize the object to be sure you have a good mental picture of it.
2. Draft and dimension the object orthographically using third angle projection at 1:1 scale on vellum paper.
3. Select what size paper you think would best fit the size of the drawing. You don't want to pick a too large piece of paper because your drawing will get lost, or too small because it will not fit.
4. Decide which view will be the front view, then set up the others. Keep in mind the following:
    a. *The front view is the most important, the one viewers see first.*
    b. *The front view should show the most basic profile.*
    c. *The front view should appear stable. Place the heavy part on the bottom.*
    d. *The front view should be positioned to minimize the number of hidden lines in all views; this enhances visualization.*
5. Properly position and center the views within the sheet. Remember to **"Block Out"** your views first and leave room for dimensions between the views.
6. Properly dimension*, note and title the orthographic views. Include the standard symbol used for third-angle projection on your drawing.
    Refer to the Dimensioning Basics handout.
7. It is highly suggested to first draft a "rough draft" of your drawing including the dimensions, and then go back and trace (*using tools still*) over this for the final copy.
8. Properly draw a drawing border and title block with required information.
9. 2-Hour Block Students: Include a 1:1 scale isometric drawing of the Bracket along with the orthographic views.
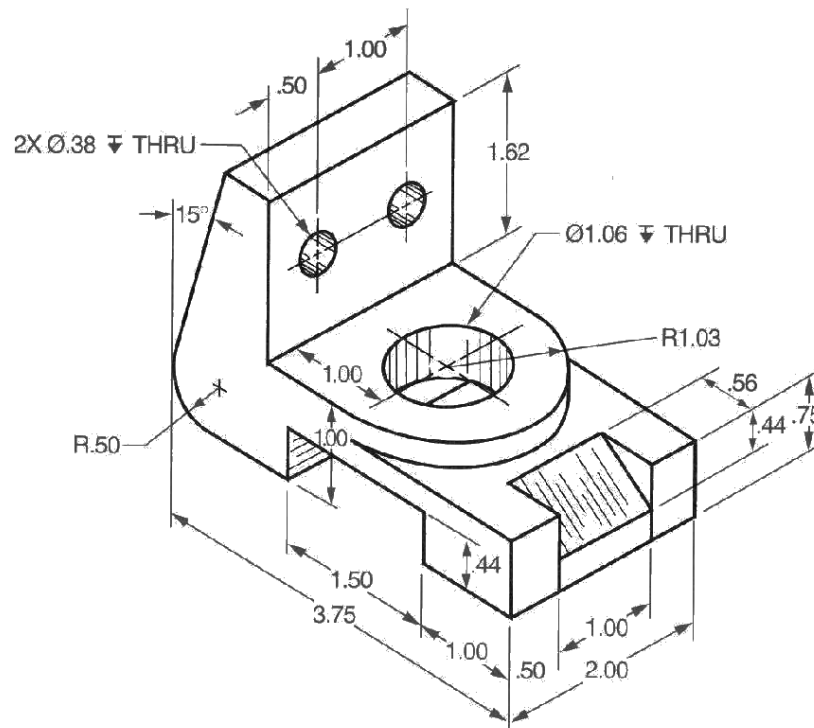
Standards: Measure lines, angles, & geometric features (d1) ID drawing views & details (d2) ID & create line types (d3) ID & create sketches (d4) Select & interpret scale & paper size (d9) ID & operate design tools/instruments (CAD &/ or manual) (d10) ID & read precision measurement tools (f1) Draw lines & curved elements (g1) Construct perpendicular & parallel lines (g2) Construct tangent lines & arcs (g3) Multiview projection (3rd & 1st angle) (l2) Locate & describe features (L1) Place local & general notes including fonts, lettering size, style, etc. (L6) ID measurements (L8)