

**Assignment #1:** Drawings are due on January 30, 2006.

Use a drawing template sheet. Fill in the title block... the part is "ASSIGNMENT 1".

1. **Lettering:** starting an inch in from the upper and left paper edges, draw guidelines for letters. They should be of appropriate height and darkness. Make 3 rows, separated by an appropriate distance. Write the alphabet followed by the ten ordinal digits:

ABCDEFGHIJKLMNOPQRSTUVWXYZ0123456789

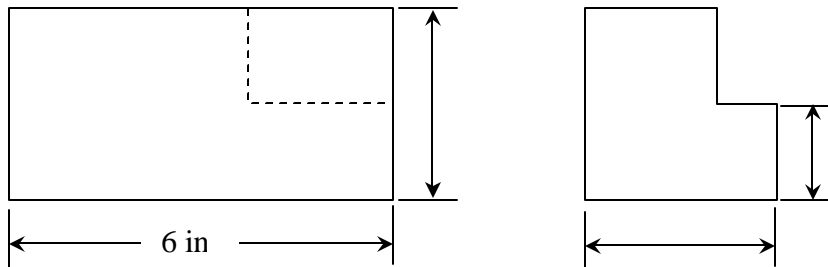
2. To the right of these, separated by at least one inch, write the following quote on 4 lines as shown here:

CONCERN FOR MAN AND HIS FATE MUST ALWAYS FORM THE  
CHIEF INTEREST OF ALL TECHNICAL ENDEAVORS. NEVER  
FORGET THIS IN THE MIDST OF YOUR DIAGRAMS AND EQUATIONS.  
ALBERT EINSTEIN

3. At the appropriate spacing below these lines, make a new row of guidelines for writing numbers with fractions. Write the following numbers:

$2\frac{1}{2}$     $5\frac{1}{4}$     $12\frac{3}{8}$     $1\frac{14}{16}$     $2\frac{8}{32}$     $7\frac{29}{64}$

4. Copy the following figure at one-half scale. The lower left corner of the object should be 1.5 inches from the corner of the page in each direction. Use correct line thicknesses. Also, write the material (aluminum) into the title block.



5. Determine by measurement what the missing dimension values are, and add them to the drawing. The view on the right is missing two lines. Are they visible or hidden? Draw them. Also, the view on the right is missing the dimension across the top. Determine its width, then add the appropriate dimension (with extension lines, dimension lines, and numeric value) to the drawing.
6. Add a top view of this item above the front view. Use the same spacing that you see here. Add any dimensions that are needed (and none that are not necessary).
7. Above the title block, lightly draw 3 rhombi, with edges vertical or inclined at 30° (see figure). Each edge should be 1 inch long. Then draw the center lines for 3 ellipses as shown here. Finally, inscribe an ellipse in each rhombus, freehand. The ellipses should touch the center of each rhombus edge, and be tangent to it.

