

Assignment #1: Isometric Sketching

Due on February 3, 2025.

Use an appropriate drawing template sheet from the web site for each drawing. Fill in the title block... the project is "ASSIGNMENT 1"; the part is "PROBLEM 1", etc.

1. Three views of an object are shown to the right. Draw an appropriate isometric view for this object. *Make measurements on this sheet* to make sure your drawing is scaled correctly. Make the longest edge about 3.5 inches.
2. Three views of an object are shown to the right. Draw an appropriate isometric view for this object. *Make measurements on this sheet* to make sure your drawing is scaled correctly. Make the longest edge about 3.5 inches.
3. Three views of an object are shown to the right. Draw an appropriate isometric view for this object. *Make measurements on this sheet* to make sure your drawing is scaled correctly. Make the longest edge about 3.5 inches.
4. This is a math/proof problem, not a drawing problem. Consider three *isometric* drawings of a cylinder having a diameter equal to its length (they are not shown here to scale, so that you can't just measure the answers). Each drawing is intended to be aligned with a primary axis. For **each of the three resulting ellipses**, use the rules of isometric drawings with trigonometry and/or geometry to compute:
 - a. The ratio (a/b) of the major axis to the minor axis.
 - b. The orientation θ of the major axis with respect to a horizontal line. Each answer will be between 0° and $+180^\circ$, inclusive.

So, you'll provide three ratios and three angles.
You might start by lightly drawing the superscribed rectangular box that "holds" each cylinder.

