Why:
3-D images are easiest to use when communicating design ideas. However, it will also be necessary to work with multiview (2-D) drawings on the shop floor. Therefore, we must also be able to visualize what the object will look like (3-D) when given a multiview drawing (2-D).

Learning Objectives:
- To know the difference between multiview drawings and isometric drawings.
- Create an isometric sketch from a multiview projection.
- Work on improving visualization skills by going from 2D ortho views to 3D iso view.

Performance Criteria:
- Sketched isometric is correct size and shape.
- Proper use of line types (Object, hidden, construction, etc.)
- Sketches are done in a neat and professional manner with the correct border and lettering.

Resources in addition to Previous Reading Assignments, Hands-On Web Sites, Other Students, Class Notes, and Instructor:
- Textbook reading assignment
- Power Point presentation and hand-outs
- SI
- Tutor

Plan:
1. Your instructor will give you a handout called Figure 9.75. This figure contains orthographic views for 12 different parts.
2. Sketch the isometric view for number 14, 15, 16, 20 and 22. Use one grid ortho = 1 grid iso. You should be able to get all 5 parts on one iso paper if you plan ahead!

Critical Thinking Questions:
1. Can you visualize the iso 3D object for all the parts shown? Practice!!