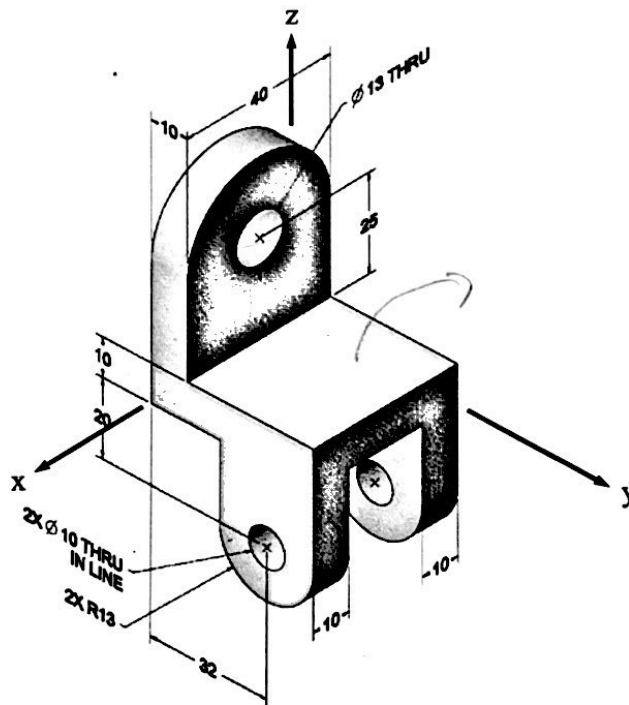


Problem #1 25 points

The pictorial of an object is shown in the figure below.

Starting with the original orientation, sketch the object after it is rotated around the y-axis by negative 90°, and then an additional rotation about the z-axis by positive 90°. Exact sizes are not required, but reasonably accurate proportions are expected. You do not need to show hidden lines, dimensions, centerlines, or centermarks.

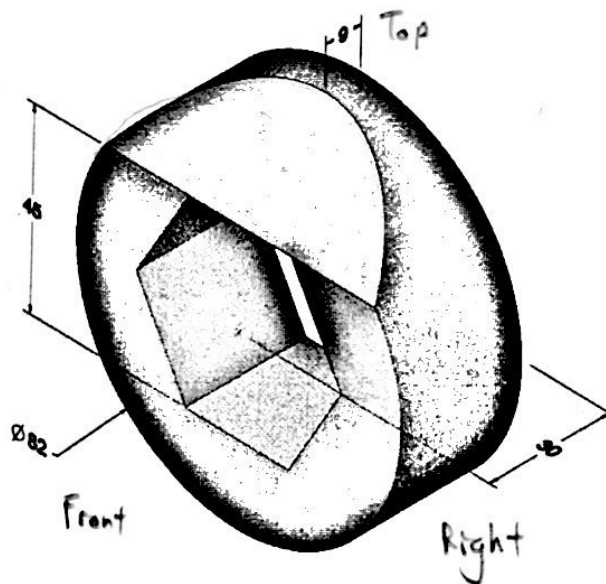


For all pictorial sketches on this exam, shading of surfaces is recommended, but not required.

Problem #2 25 points

The figure below shows a pictorial drawing of a wedge spacer. The pictorial shows the front, top and right sides of the part. It is desired to make this object using a casting process, so a mold cavity must be made by performing a Boolean subtraction of the object from the rectangular block shown, such that the front of the part is face down and the back of the part is co-planar with the top of the block.

- a) Sketch an isometric view of the mold that shows the cavity created by subtracting the part from the block. Do not show the hidden lines.
- b) Sketch another isometric view of the mold after it has been rotated by positive 90° about the z-axis from the position in part (a). Do not show the hidden lines.

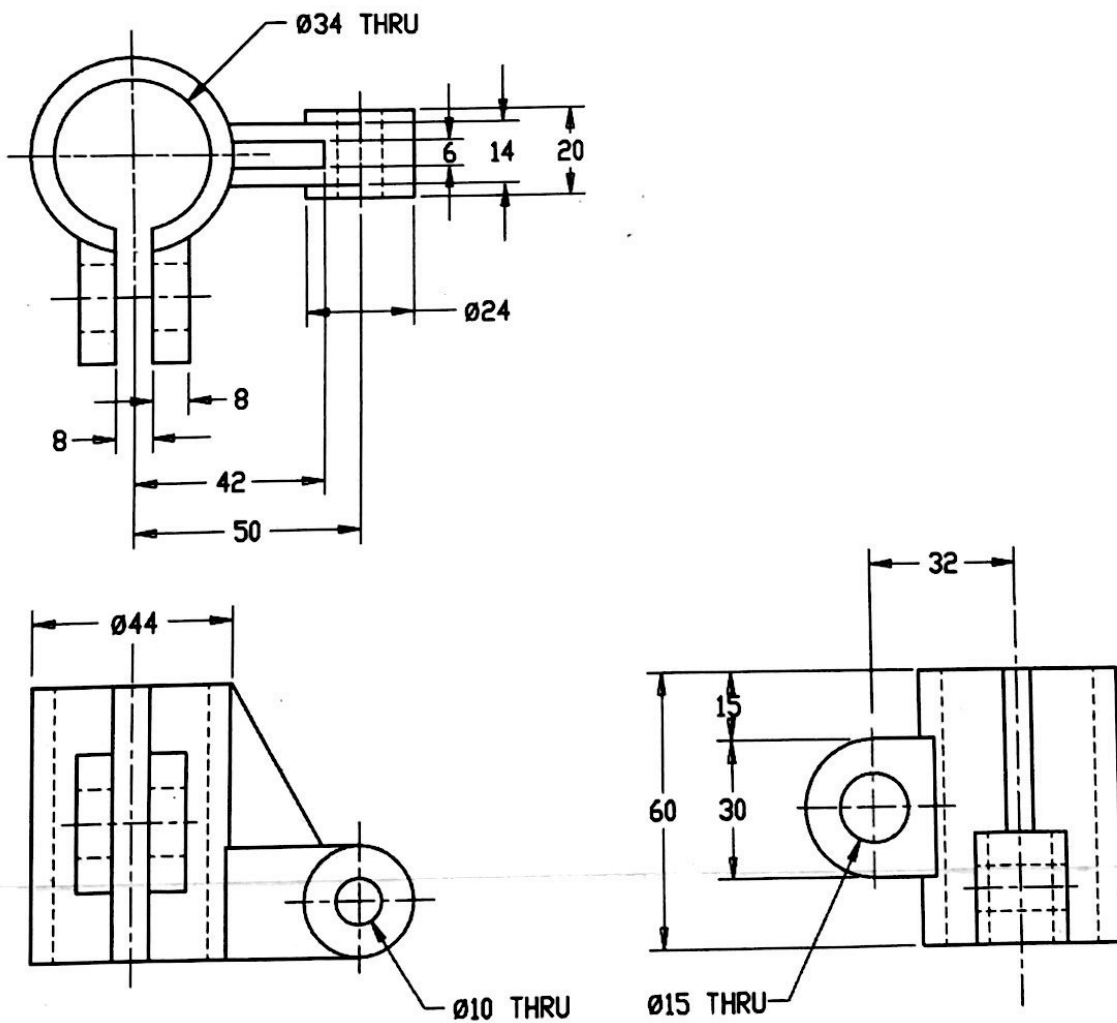


y

For all pictorial sketches on this exam, shading of surfaces is recommended, but not required.

Problem #4 25 points

The figure below shows the front, top, and right side views of a 3-dimensional object in 3rd angle projection. Create an isometric pictorial that shows the front, top, and right side of the object. You do not need to show the dimensions, hidden lines, center lines, or center marks.



For all pictorial sketches on this exam, shading of surfaces is recommended, but not required.