

Name _____

SID # _____

Engineering 25
Spring Semester 2017
Midterm Exam

120 minutes
Closed Book Exam

Problem 1 _____ /28

Problem 2 _____ /36

Problem 3 _____ /36

Total Score _____ /100

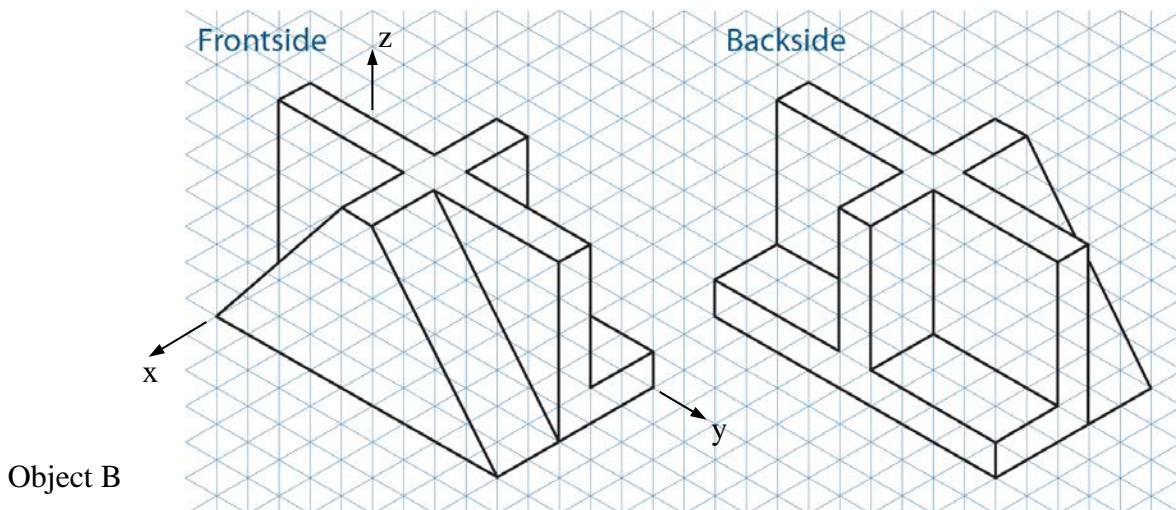
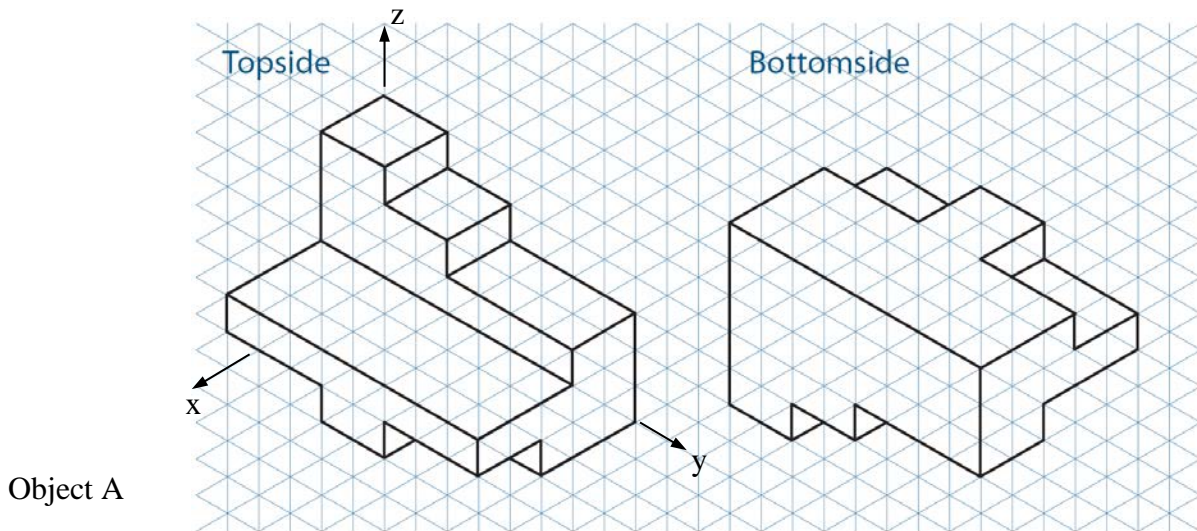
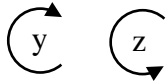
Problem #1 28 points

The pictorials of two objects are shown in the figure below. The objects are shown on two views to reveal all of their features.

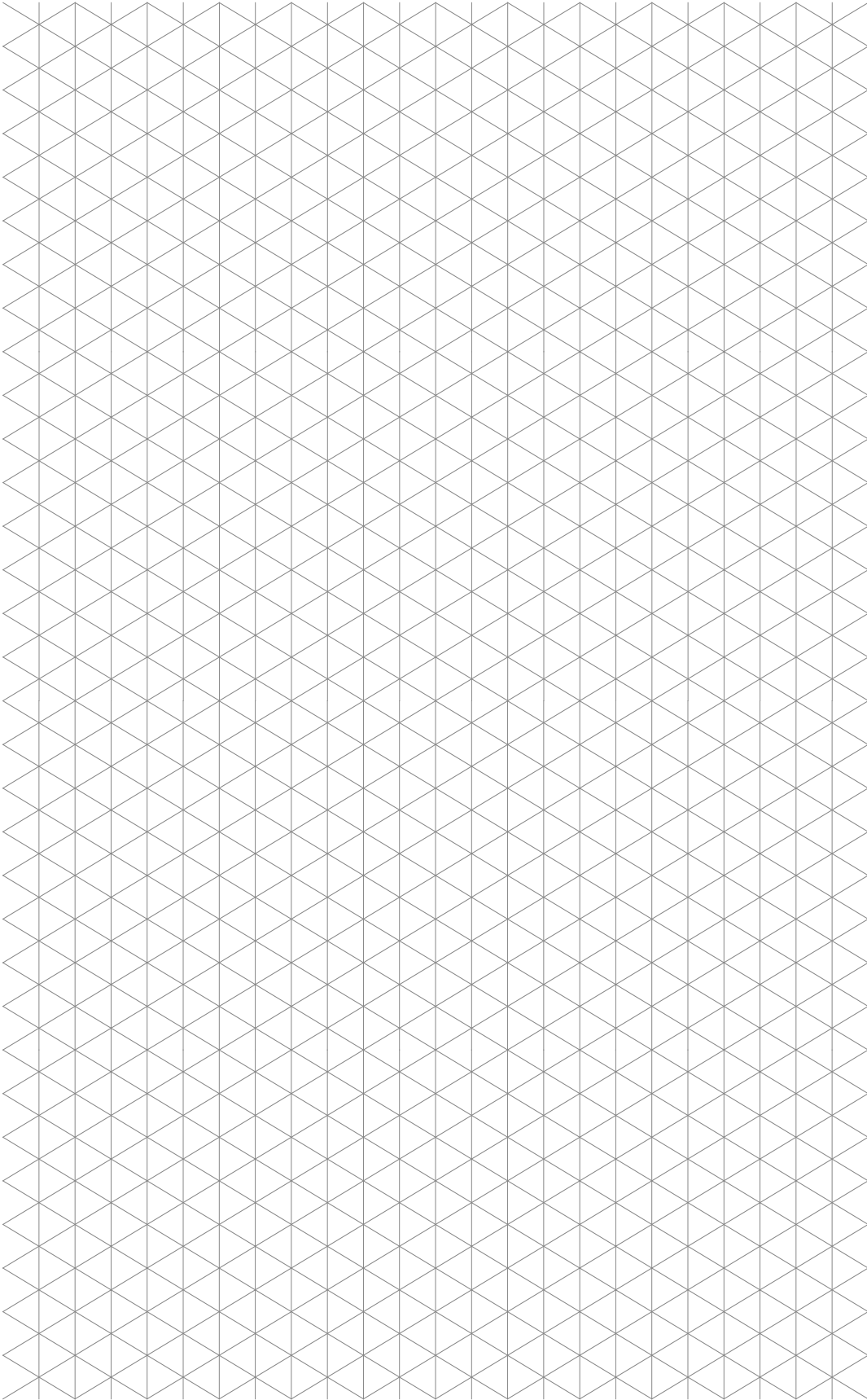
- a. Sketch the topside and bottomside isometric views when Object A is rotated around the x-axis by -90° , and then about the z-axis by -90° .



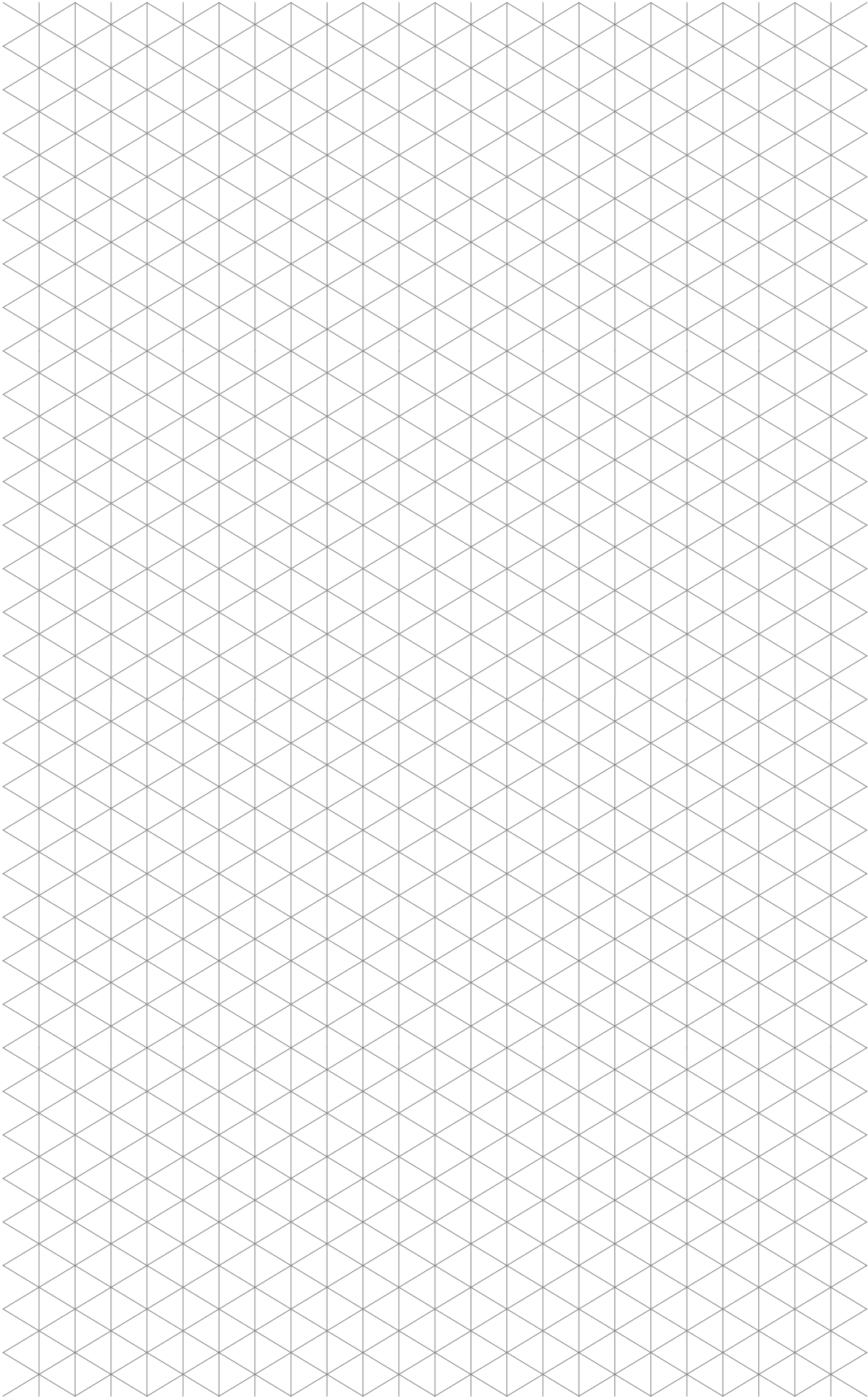
- b. Sketch the frontside and backside isometric views when Object B is rotated around the y-axis by -90° , and then about the z-axis by $+90^\circ$.



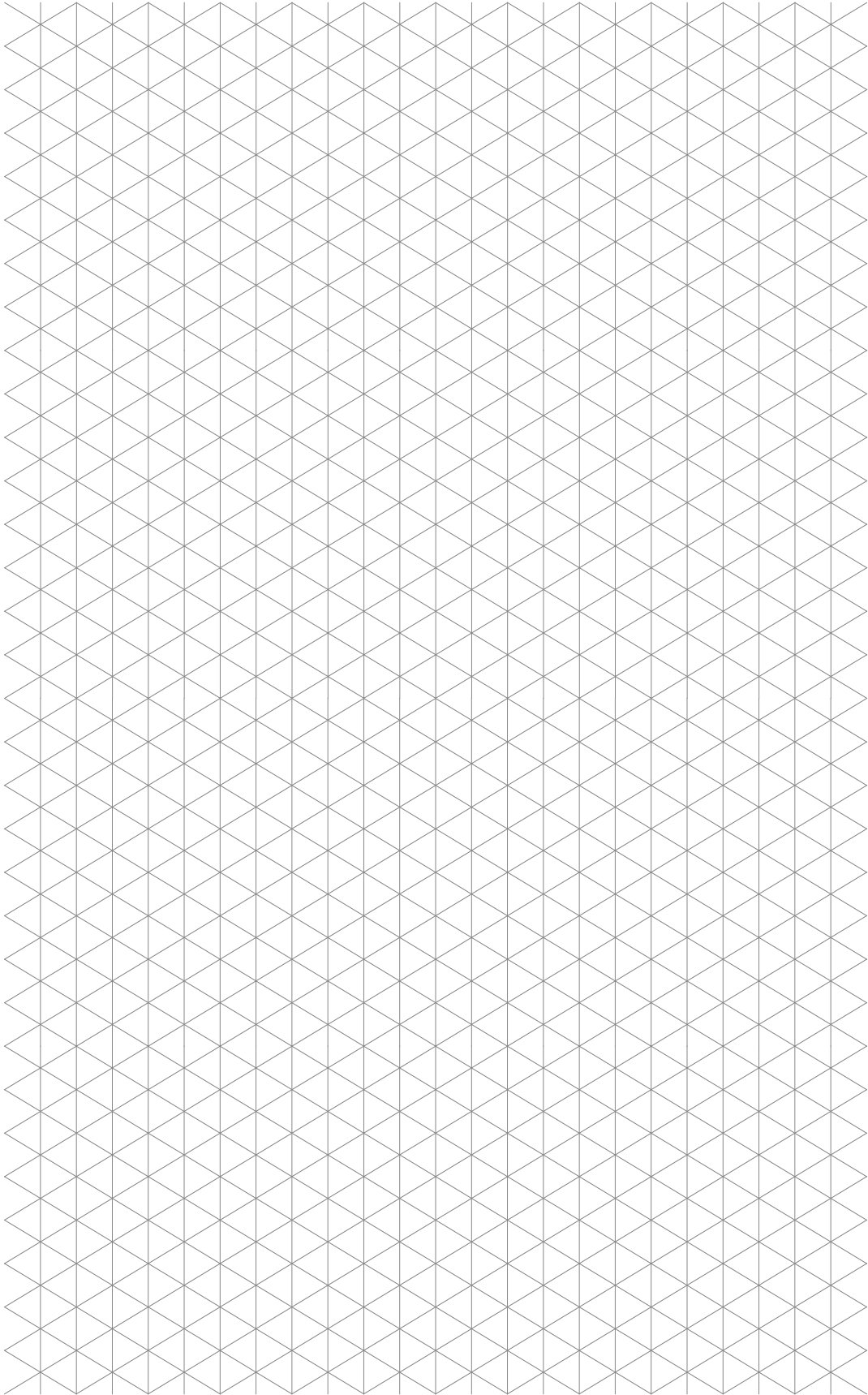
For all pictorial sketches on this exam, shading of surfaces is recommended, but not required.



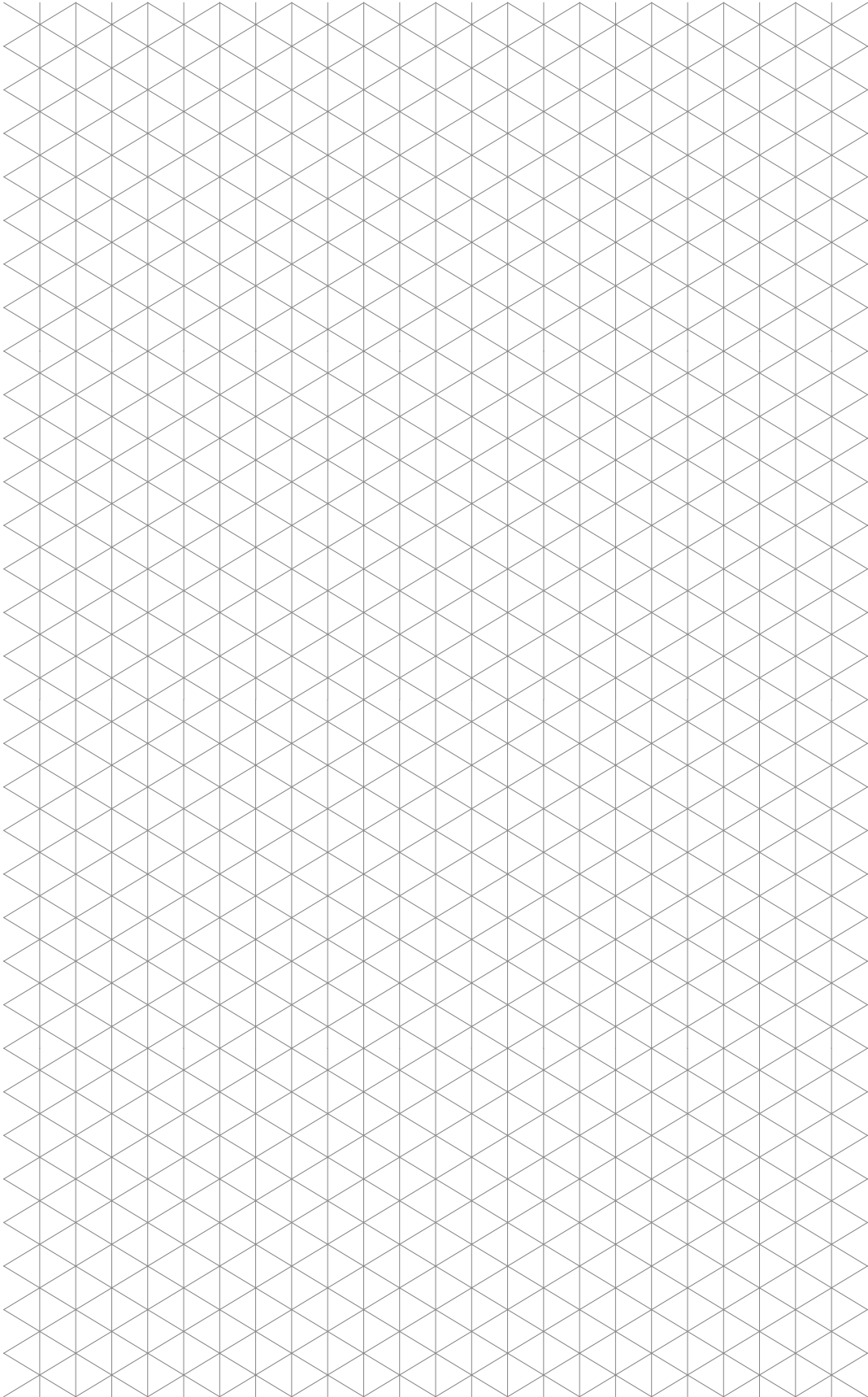
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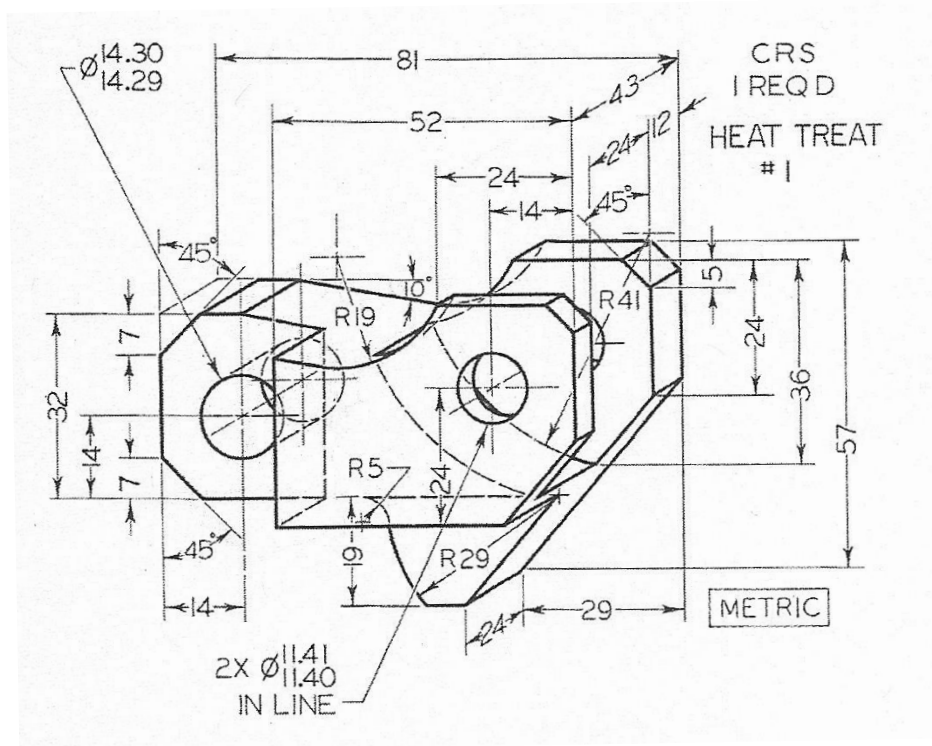
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Problem #2 36 points

The figure below shows a pictorial drawing of a rolling lever. The pictorial shows the front, top and right sides of the part. Sketch a multi-view drawing of the bracket showing the front, top, bottom, and right side views, with sufficient hidden lines to fully define the geometry of every feature. Center-lines and center-marks must be used when needed. Exact sizes are not required, but reasonably accurate proportions are expected. **Use 3rd angle projection.**

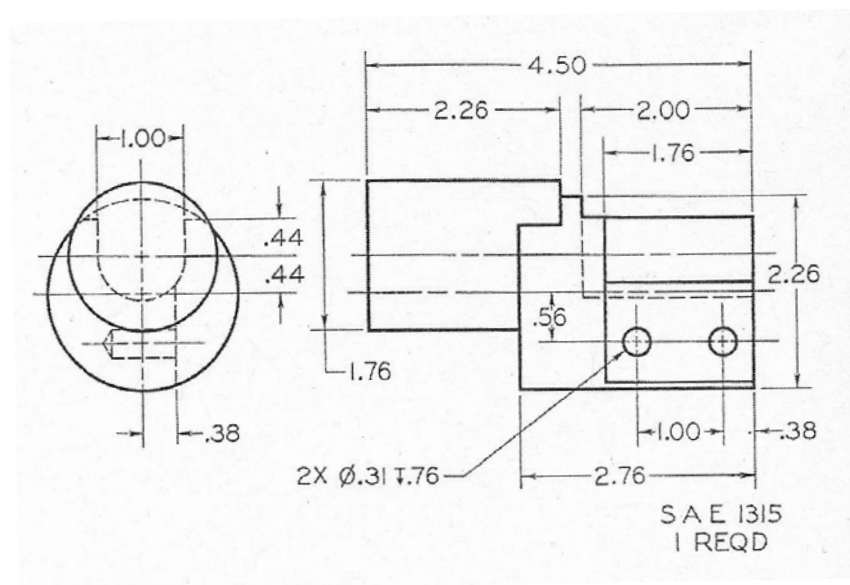


For all pictorial sketches on this exam, shading of surfaces is recommended, but not required.

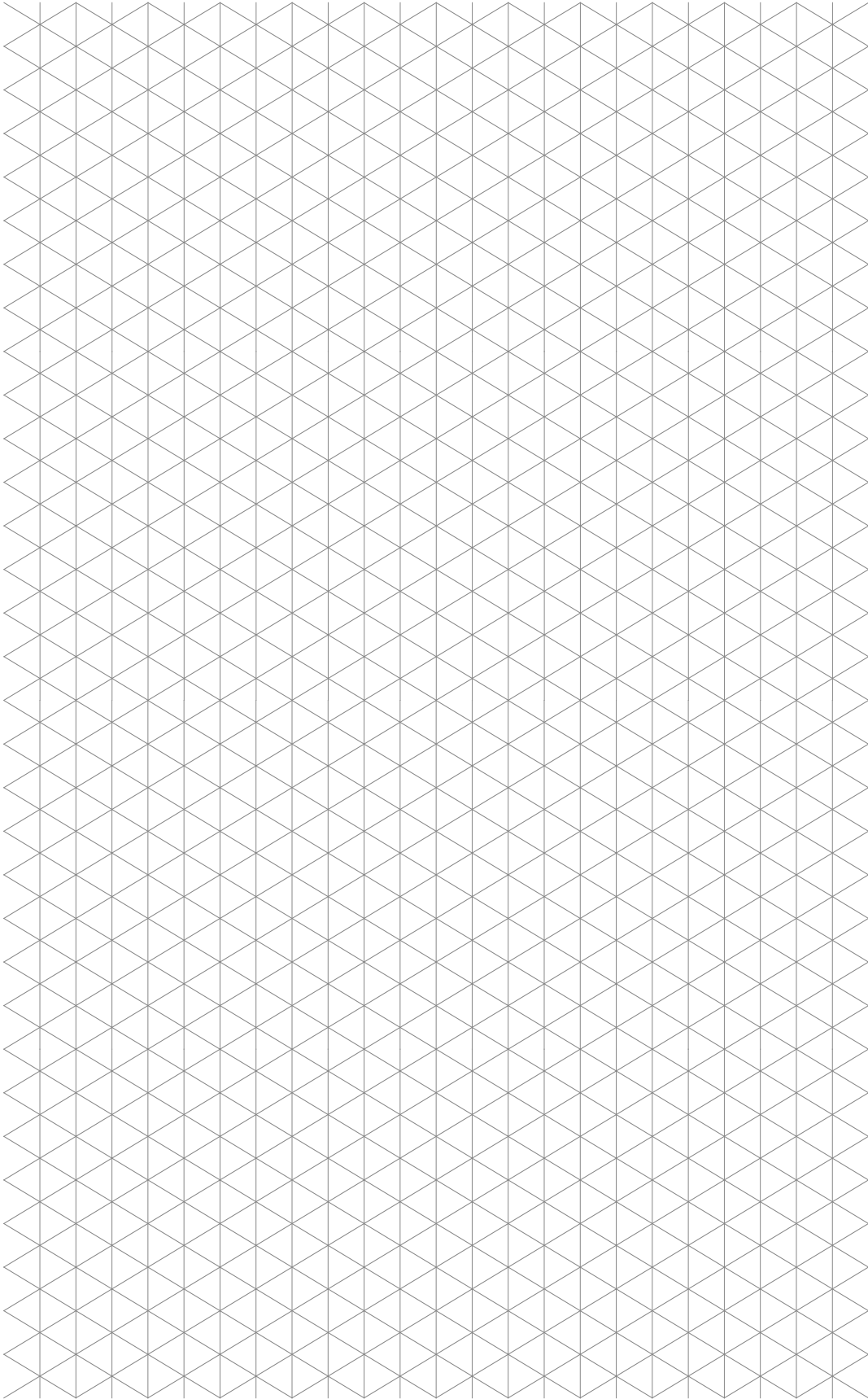
Problem #3 36 points

The figure below shows the left side and front views of a 3-dimensional object in 3rd angle projection.

- On the figure below, add the top and right side views. There is no need to add dimensions to the views; however, hidden lines, center-lines and center-marks must be included.
- Create an isometric pictorial that shows the front, top, and left sides of the object.
- Create an isometric pictorial that shows the front, top, and right sides of the object.



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



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