## Lesson 8.2: Drawing Views of Rotated Objects

1. Build this object.

Rotate the object as describe below, then match each view to the front, top, and side views of the rotated object.
A lettered view can be used more than once.
a) a horizontal rotation of $90^{\circ}$ clockwise about
the vertical axis shown
b) a horizontal rotation of $180^{\circ}$ clockwise about the vertical axis shown
c) a vertical rotation of $90^{\circ}$ away from you about the horizontal axis shown

2. Suppose the object in question 1 was rotated horizontally $180^{\circ}$ counterclockwise about the vertical axis shown. How would the views of the object after the rotation compare to those in question 1b? Justify your answer.
3. Here is an isometric drawing of an object.


The object is rotated horizontally $270^{\circ}$ clockwise about the axis shown.
a) Draw the front, top, and side views of the object after the rotation.
b) Describe a different rotation that will have the same views as the ones you drew in part a.
4. Use the object in question 3 .

Suppose the object is rotated $270^{\circ}$ counterclockwise.
Will the new views of the object be the same as those drawn in question 3a?
If your answer is yes, explain how you know.
If your answer is no, draw the new views.

