Cross Sections and 2D to 3D

Circle the cross-section you would see when the grey cutting plane slices the object. Imagine that you are facing the cutting plane head-on, as if you were looking in a mirror. Make your choice based on the shapes of the possible answers, not their sizes.

Converting 2D shapes to 3D.

For the following problems be sure to identify the height and radius of each figure formed.
Converting 2D to 3D

1. Describe in detail the solid formed by rotating a 4 x 2 rectangle with vertices (1, 0), (5, 0), (1, 2) and (5, 2) about the x-axis. Include the dimensions of the solid in your description.

2. Describe in detail the solid formed by rotating a 2x4 rectangle with vertices (1, 0), (3, 0), (1, 4) and (3, 4) about the y-axis. Include the dimensions of the solid in your description.

1. Describe in detail the solid formed by rotating a right triangle with vertices at (0, 3), (-4, 3), and (0, -2) about the vertical axis. Include the dimensions of the solid in your description.

b. Would these dimensions change if you rotated it around the horizontal axis? Why or why not?