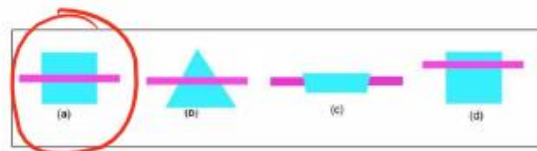
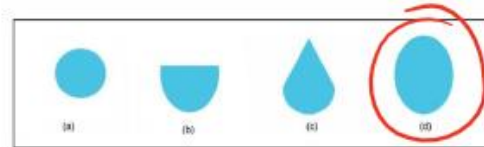
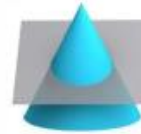
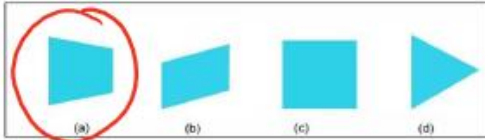


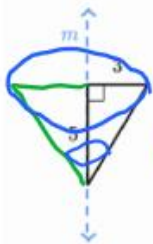
Circle the cross-section you would see when the grey cutting plane slices the object. Imagine that you are facing the cutting plane head-on, as if you were looking in a mirror. Make your choice based on the possible answers, not their sizes.



Converting 2D shapes to 3D.

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

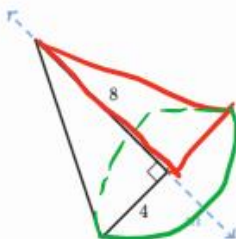
Consider the following figure:



Cone
with radius of 3
and height of 5

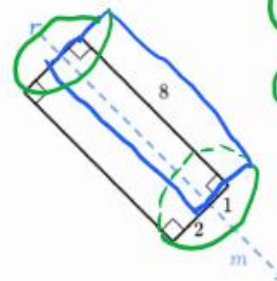
What solid 3D object is produced by rotating the triangle about line m ?

Consider the following figure:



A cone with a radius of 4
and height of 8.

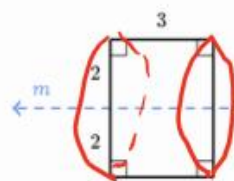
Consider the following figure:



Cylinder with
a radius of 2
and a height
of 8.

What solid 3D object is produced by rotating the rectangle about line m ?

Consider the following figure:

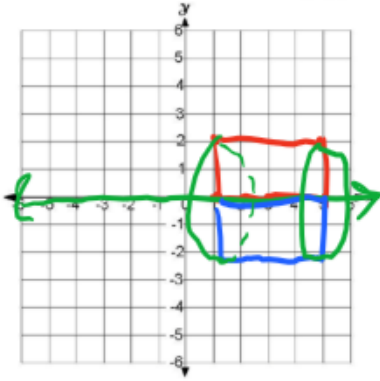


A cylinder with
a radius of 2
and an a height
of 3.

What solid 3D object is produced by rotating the rectangle about line m ?

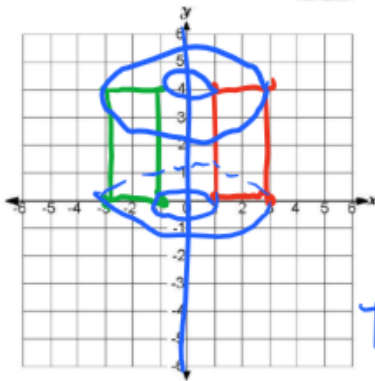
Converting 2D to 3D

- Describe in detail the solid formed by rotating a 4×2 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.



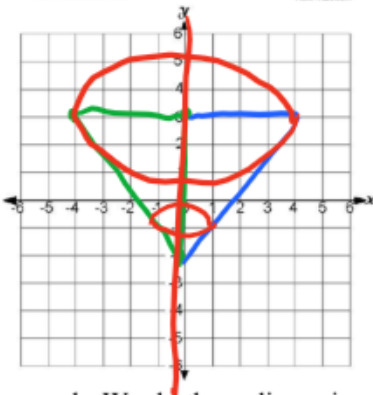
A cylinder with a radius of 2 and a height of 4.

- Describe in detail the solid formed by rotating a 2×4 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.



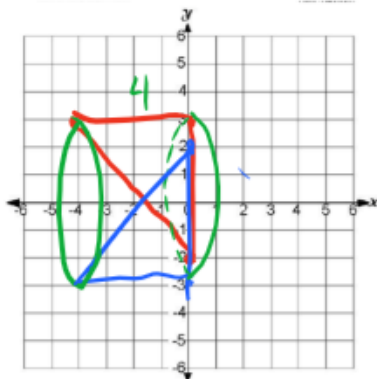
A cylinder with a hole.
The cylinder has a radius of 3 and a height of 4.
The hole has a radius of 1 and height of 4.

- 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.



A cone with a radius of 4 and a height of 5.

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



A cylinder with a cone taken out
So the dimensions would not be the same.