

Name: _____

Math 233: Multivariate Calculus
Friday, September 7, 2018

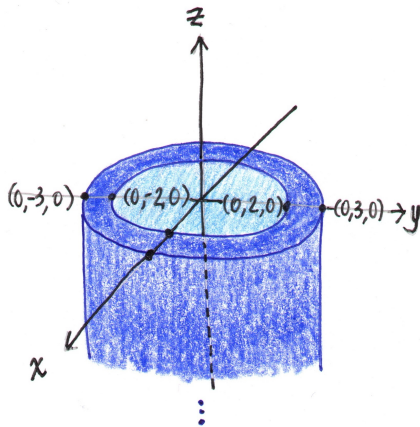
Quiz 1

Please write neatly and show all of your work.

1. Sketch the surface in \mathbb{R}^3 . Be sure to label axes, intersection points of the surface with the axes, etc.

$$x^2 + y^2 + z^2 \leq 4 \text{ and } x \geq 0 \text{ and } y \leq 0$$

2. Write the equations that represent the surface below.



3. Find a unit vector that has the same direction as the vector $\mathbf{v} = \langle 1, -2, 3 \rangle$.