

YOUR NAME: _____

George Voutsadakis

Read each problem **very carefully** before starting to solve it and do only what is asked. Each problem is worth around 5 points. It is necessary to show **all** your work. Correct answers without explanations are worth 0 points. GOOD LUCK!!

1. [2 points] Consider the region bounded by the graph of $x = 9 - y^2$ in the first quadrant. Suppose we rotate this region about the y -axis. Make a sketch of the resulting solid of revolution. (Please, do as decent a job as you can.)

2. [4 points] Use the washer method to find the volume of the solid you sketched in Problem 1.

3. [6 points] Use cylindrical shells to find the volume of the solid you sketched in Problem 1.