Name:_____

Math 2030, Fall 2017, Quiz 11
10 November 2017
R. Bruner

No calculators needed or allowed.

Let D be the region inside the sphere of radius R centered at the orgin and above the plane $z = R/2$.

1. Describe D in cylindrical coordinates.

2. Compute the volume of D.

3. Compute the volume of that part of the sphere which lies between angles $\phi = \pi/6$ and $\phi = \pi/3$. (This is not related to D.)