MATH 251: Quiz 5

April 2, 2015

Name: _____ Sec: _____

1. Calculate

$$\iiint_{\mathcal{D}} x + y \; dV$$

for the region in the first octant $x \geq 0$, $y \geq 0$, $z \geq 0$ between the planes $z = 2$ and $z = x + y + 1$. You should be looking at the region near the origin.

2. Compute

$$\iint_{\mathcal{R}} y \, dA$$

for the region $\mathcal{R}$ pictured below by changing to polar coordinates.