

Name:
November 10, 2016
MAC 2313.9722
Cyr

Quiz 11

You must show all work to receive full credit!!

Problem 1. (5 points) Use cylindrical coordinates to write a triple integral which gives the volume of the solid enclosed by the cone $z = \sqrt{x^2 + y^2}$ and the sphere $x^2 + y^2 + z^2 = 2$. (Do NOT evaluate.)

Problem 2. (5 points) Use the transformation $T(u, v) = (u + v, v - u)$ to evaluate $\iint_D \frac{x - y}{x + y} dA$, given that $D = T(S)$ and $S = \{(u, v) \mid -2 \leq u \leq 0, 1 \leq v \leq 2\}$.