Name:
Student ID #:

Question 1. Find the average value of $f(x, y) = e^{y/x}$ over the region enclosed by $y = x$, $y = -x$, and $x = 2$.

Question 2. Setup a double integral in polar coordinates to find the volume of the solid enclosed from above by the paraboloid $z = 10 - 3x^2 - 3y^2$ and below by z=1.

Your Solution.