

AMAT 309 L02 Winter 2003

Quiz 5 30 Minutes

NAME: _____ ID: _____

1. Use a double integral to find the volume of the solid above the triangle with vertices $(0, 0)$, $(1, 0)$, $(0, 2)$ and below the plane $z = 2 - x - (y/2)$. [30]

2. Evaluate the given double integral over the quarter disk R given by $x \geq 0$, $y \geq 0$, $x^2 + y^2 \leq a^2$: [30]

$$\iint_R \frac{2xy}{x^2 + y^2} dA .$$

3. Sketch the domain of integration and evaluate the iterated integral [40]

$$\int_0^{\pi/2} \int_y^{\pi/2} \frac{\sin x}{x} dx dy .$$