

Name: _____ ID #: _____ Section #: 5

Question 1 (5 points) Calculate the integral

a)
$$\iint_R (y + xy^{-2}) dA,$$

$$R = \{(x, y) \mid 0 \leq x \leq 2, 1 \leq y \leq 2\}$$

b)
$$\int_0^1 \int_x^1 e^{x/y} dy dx \quad (\text{by reversing the order})$$

Question 2 (5 points) Find the volume of the solid in the first octant bounded by the coordinate planes, the cylinder $y^2 + z^2 = 4$ and the planes $x + y = 3$. Sketch the solid.