Instructions. Show all work, with clear logical steps. No work or hard-tofollow work will lose points.

**Problem 1.** (3 points) Switch the order of integration of the following integral.

$$\int_0^1 \int_{e^x}^e f(x,y) dy dx$$

**Problem 2.** (3 points) Switch the order of integration of the following integral.

$$\int_0^1 \int_{x^2}^x f(x,y) \, dy dx$$

**Problem 3.** (4 points) Evaluate

Quiz 14

$$\iint_D \frac{1}{x^2 + 7} \, dA,$$

where D is the region bounded by y = 5x, the x-axis and x = 2.