MAC 2313 Cal3   **Quiz 6**   6 Mar 2003   **Name:**_____

Show **ALL** work for credit; be neat. Calculators can be used for graphing and calculating only. Give exact answers when possible.

1. Evaluate the double integral below by converting to polar coordinates, where D is the disk of radius 2 centered at the origin.

$$\iint_D \sin(x^2 + y^2) \, dA$$

.

2. Sketch the region of integration for the iterated integral below, and evaluate the integral by reversing the order of integration.

$$\int_0^1 \int_y^1 e^{x^2} \, dx \, dy$$