

**“QUIZ” for Lecture 15**

**NAME:** (print!) \_\_\_\_\_ **Section:** \_\_\_\_\_

**E-MAIL SCANNED .pdf OF COMPLETED QUIZ to DrZcalc3@gmail.com (Attachment: qXFirstLast.pdf) ASAP BUT NO LATER THAN Oct. 29, 8:00pm**

1. Use polar coordinates to compute the double integral

$$\int \int_D xy \, dA \quad ,$$

where

$$D = \{(x, y) \mid x^2 + y^2 \leq 1, x \geq 0, y \geq 0\} \quad .$$

2. Evaluate the iterated integral by converting it to polar coordinates

$$\int_0^1 \int_0^{\sqrt{1-y^2}} e^{x^2+y^2} \, dx \, dy \quad .$$

**Note:** The previous version had a typo ( $dy \, dx$  instead of  $dx \, dy$ , that made it nonsense). I thank Yidi "Wendy" Weng for pointing it out (and see won a dollar).