Math 251
Quiz 6 October 19, 2016

Name:

By handing in this quiz you assert that you understand and have followed IIT's guidelines for academic integrity.

(1) True or false: every double-integral is positive, because it represents volume.

(2) True or false: for every R, f, and g, $\iint_R f \cdot g \; dA = \left(\iint_R f \; dA\right) \cdot \left(\iint_R g \; dA\right)$.

(3) Evaluate $\iint_R (xy^2 + 2)\, dA$ where R is the disk $x^2 + y^2 \leq 4$.
(Hint: no calculations are necessary.)

(4) Change the order of integration to find $\int_0^4 \int_{y/2}^2 e^{-x^2}\, dx\, dy$.