

**KING FAHD UNIVERSITY OF PETROLEUM AND MINERALS**  
**DEPARTMENT OF MATHEMATICS AND STATISTICS**  
**MATH 201 - QUIZ 5**

Name:

Student ID #:

**Question 1.** Evaluate the double integral  $\int_0^1 \int_{3y}^3 \sin(x^2) dx dy$ .

**Question 2.** Find the average value of  $f(x, y) = xy$  over the triangle whose vertices are  $(0, 0)$ ,  $(2, 0)$ , and  $(1, 3)$ .

**Your Solution.**