

King Fahd University of Petroleum & Minerals

Department of Mathematical Sciences

MATH - 201-01&02

Semester 123

Quiz - 3

Name: _____ ID# _____

Problem 1

Find the absolute extrema of $f(x, y) = e^{xy}$ subject to the constraint

$$x^2 + 4y^2 \leq 2.$$

Problem 2.

Evaluate

$$\int_0^1 \int_{2y}^2 \cos(x^2) dx dy.$$