

King Fahd University of Petroleum and Minerals
Department of Mathematics and Statistics
Math 201 - Quiz 4

Name:

Student ID #:

Question 1. Consider the surface given by $f(x, y) = \sqrt{x^2 + y - 4}$. Find an equation of its level curve passing through the point $(3, -1)$ and sketch it.

Question 2. Show that the limit $\lim_{(x,y) \rightarrow (0,0)} \frac{xy^3}{x^2 + y^6}$ does not exist.

QUESTION 3 IS ON THE BACK OF THE PAGE.

Question 3. If the equation $x + y + z = yze^{xz}$ defines z as function of x and y , then find $\frac{\partial z}{\partial x}$.