

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

Name:

Student ID #:

Question 1. Find and sketch the domain of $f(x, y) = \frac{1}{\sqrt{x - y^2}}$.

Question 2. Determine, if it exists, the limit $\lim_{(x,y) \rightarrow (0,0)} y \ln(x^2 + y^2)$.

QUESTIONS 3 IS ON THE BACK OF THE PAGE.

Question 3. If $f(x, y) = \cosh(\sqrt{x}) \sinh^2(xy^2)$, then find $\frac{\partial f}{\partial x}$.