

Math 201-163

Quiz 5

(A)

Name:.....ID#:.....Sec:.....Ser:.....

Q.1: Show that the limit $\lim_{(x,y) \rightarrow (0,0)} \frac{x^2y}{x^4 + y^2}$ does not exist.

Q.2: Find $\frac{\partial z}{\partial x}$ and $\frac{\partial y}{\partial x}$ if $xz + y \ln x - x^3yz = 10$.

Q.3: Find linearization of $f(x, y) = x \cos y - ye^x + 2$ at $(0, 0)$. Using linearization, approximate $f(0.01, -0.05)$.