

Math 201-172

Quiz 6

(A)

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

Q.1: Evaluate the limit $\lim_{(x,y) \rightarrow (0,0)} \frac{2x^2y}{3x^4 + y^2}$

Q.2: Evaluate the limit $\lim_{(x,y) \rightarrow (0,0)} \frac{2x^2y}{x^2 + y^2}$

Q.3: Compute $\frac{\partial z}{\partial x}$ and $\frac{\partial x}{\partial y}$ for the function $2^x y + y \ln(xz^2) = 5$

Q.4: Find linear approximation of $f(x, y) = x^2 + 2y^2$ at $(1, 1, 3)$ and use it to approximate $f(1.05, 0.99)$.