

Name: _____

Math 233: Multivariate Calculus (Sect 13)

Instructor: Jennifer Li

Friday, October 12, 2018

Quiz 6

Please write neatly and show all of your work.

1. Find the limit, if it exists, or show that the limit does not exist.

$$\lim_{(x,y) \rightarrow (0,0)} \frac{xy^4}{x^2 + y^8}$$

2. Find the first partial derivatives $f_x(x, y)$ and $f_y(x, y)$ of the function

$$f(x, y) = \frac{e^y}{x + y^2}$$