Name: _____

Math 233: Multivariate Calculus (Sect 13)
Instructor: Jennifer Li
Friday, October 26, 2018

Quiz 8

Please write neatly and show all of your work.

1. Find the maximum rate of change of $f(x, y) = x^2y + \sqrt{y}$ at the point $(2, 1)$. In which direction does it occur?

2. Find the local maximum and minimum **values** and saddle point(s) of the function $f(x, y) = x^3 - 3x + 3xy^2$.