Name _____

Math 173 - Quiz 8 April 2, 2015

Score _

Show all work to receive full credit. Supply explanations when necessary.

1. (4 points) Let $f(x, y) = \sin(2xy) + xe^{-2xy}$. Find an equation of the plane tangent to the graph of f at the point where $(x, y) = (\pi, 0)$. Use your equation to approximate f(3, 0.1).

2. (6 points) Find and classify the critical points of $f(x, y) = x^3 + 3xy^2 - 15x + y^3 - 15y$.