MATH 251: Practice 11

June 16, 2015

Name: _____

1. Find $\frac{\partial f}{\partial s}$ in terms of s and t if $f(x, y) = e^x + 2xy$ and

$$x = s^2 + t^2 \qquad y = 2t + s.$$

2. Find and classify all local extreme values of $f(x, y) = \frac{x^3}{3} - 3x + y^2 - 2xy$.