

Math 3113 - Multivariable Calculus

Quiz #11 - 2006.04.05

Name: _____

Consider the function $f(r, \theta) = \sqrt{r^2 + \theta^3} \sin^2(2\theta - 3r)$. Answer the following questions.

1. Compute $\frac{\partial f}{\partial \theta}$.

2. Compute $\frac{\partial f}{\partial r}$.

3. Compute $\frac{\partial^2 f}{\partial r \partial \theta}$.

4. Compute $\frac{\partial^2 f}{\partial \theta \partial r}$.