

Quiz V MATH-225

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Name _____

Instructions. You are expected to show all your work. **Full credit will be given only to complete answers.**

1. Find the first partial derivatives $\frac{\partial f}{\partial r}$ and $\frac{\partial f}{\partial s}$

$$f(r, s) = r \log(r^2 + s^2)$$

2. If $z = 5x^2 + y^2$ and (x, y) changes from $(1, 2)$ to $(1.05, 2.1)$ compute the values of Δz and dz .