Please PRINT your name _____

No calculators, cell phones, computers, notes, etc.

Circle your answer. Make your work correct, complete and coherent.

The quiz is worth 5 points. The solutions will be posted on my website later today.

Quiz 4, September 9, 2020

Let $f(x,y) = \sqrt{x^2 + y^2}$. Find $\frac{\partial f}{\partial x}$ and $\frac{\partial f}{\partial y}$.

To calculate $\frac{\partial f}{\partial x}$, pretend y is constant and take the derivative with respect to x:

$$\boxed{\frac{\partial f}{\partial x} = \frac{2x}{2\sqrt{x^2 + y^2}}.}$$

To calculate $\frac{\partial f}{\partial y}$, pretend x is constant and take the derivative with respect to y:

$$\boxed{\frac{\partial f}{\partial y} = \frac{2y}{2\sqrt{x^2 + y^2}}.}$$