NAME: _Ellie Grano_   Grade: ___/3

Find the first order partial derivatives of the function $f(x,y) = \sin(x^3 y) + \sqrt{x^2 + y^2}$.

$$f_x = 3x^2 y \cos(x^3 y)$$

$$+ \frac{x}{\sqrt{x^2 + y^2}}$$

$$f_y = x^3 \cos(x^3 y)$$

$$+ \frac{y}{\sqrt{x^2 + y^2}}$$