Name:

Math 208, Section 3

Quiz number 4

Show all work. How you get your answer is just as important, if not more important, than the answer itself. If you think it, write it!

Find the partial derivatives of the function

$$z = f(x, y) = (xy - 1)(x^2 + y)^{\frac{1}{2}}$$

Use them to find the directional derivative of the function f in the direction of the vector $\vec{v} = (3,4)$, at the point $(a, b) = (1,3)$.