

Name:

427L Quiz (2/17/22)

1. Compute the limit, or show that it does not exist:

(a)

$$\lim_{x,y \rightarrow 0,0} \frac{x^4 + xy^2}{x^2 + y^2}$$

(b)

$$\lim_{x,y \rightarrow 0,0} \frac{(x+y)^2 - (x-y)^2}{xy}$$

2. Compute the partial derivatives f_x and f_y if $f(x, y) = 2x^2y - \sin(x) \cos(y) + e^{2y}$.