

Math 301 Quiz #1b September 7, 2014

Name:..... ID:.....

Exercise # 1: Find the directional derivative of

$$f(x, y) = e^{2xy} \sin(2y)$$

at $(2, \frac{\pi}{4})$ in the direction of the vector $u = i + 3j$.

Exercise #2: Find the divergence of the vector field

$$F(x, y, z) = z^2 xi + 5y^2 xj + e^z yk$$