

February 24, 2004

Show all work for credit.

1. Find $\frac{\partial z}{\partial x}$ and $\frac{\partial z}{\partial y}$ of the following functions.

(a) $f(x, y) = xe^{-t} \sin t$

(b) $x^2 + y^2 - z^2 = 2x(y + z)$

(c) $z = f(x) + g(y)$