

Assignment 9

1. Find the f_x, f_y, f_z .

(a) $f(x, y) = 7ye^{y/x}$

(b) $f(x, y) = \arccos(xy)$

(c) $f(x, y) = \ln \frac{x+y}{x-y}$

(d) $f(x, y, z) = \sqrt{3x^2 + y^2 - 2z^2}$

(e) $f(x, y, z) = \frac{xy}{x+y+z}$

2. Find the total differential.

(a) $f(x, y) = e^{-x} \tan y$

(b) $f(x, y, z) = \frac{x+y}{z-3y}$