

SUPPLEMENTARY PROBLEMS FOR SECTION 3.2

Determine the second order Taylor formula for the given function about the given point (x_0, y_0, z_0) .

A. $f(x, y, z) = z e^{(xy)} + y z^3 x^2$ at $(0, 2, 3)$.

B. $f(x, y, z) = \sqrt{2} x^2 e^y \sin(z)$ at $(1, 0, \frac{\pi}{4})$.

C. $f(x, y, z) = x^2 y^3 z^4$ at $(3, 2, 1)$.