

Math 2551 Worksheet Section 14.9

1. Use Taylor's formula to find quadratic and cubic approximations of f near the origin. Then, Estimate the error in the quadratic approximation if $|x| \leq 0.1$ and $|y| \leq 0.1$.

(a) $f(x, y) = \cos x \cos y$

(b) $f(x, y) = e^x \sin y$