243 - Section 4 - HW 19 - Due: 4/25

#### Name:

Score:

/15

## Problem 1

For the function  $f(x,y) = e^x \cos(y)$ , use Taylor series to find a polynomial of degree 2 which approximates this function for points near the origin.

### Problem 2

For the function  $f(x,y) = \sin(x)\cos(y)$ , use Taylor series to find a polynomial of degree 2 which approximates this function for points near the origin.

243 - Section 4 - HW 19 - Due: 4/25

### Name:

# Problem 3

For the function  $f(x,y) = e^x \ln(1+y)$ , use Taylor series to find a polynomial of degree 3 which approximates this function for points near the origin.

Score:

/15