

## Quiz 4

Your Name (please PRINT): \_\_\_\_\_

Student ID Number: \_\_\_\_\_

1. Let  $f(r, s) = e^{-r} \sin(2s)$ . Find  $f_{rs}$ .

2. Find an equation of the tangent plane to the surface  $z = 2xe^{xy}$  at  $x = 1$  and  $y = 0$ .

3. If  $v = x^2 \sin y + ye^{xy}$ , where  $x = s + 3t$  and  $y = st$ , use the Chain Rule to find  $\partial v / \partial s$  when  $s = 0$  and  $t = 1$ .