

**Math 225: Calculus III**  
**Quiz 5 Oct. 6/8, 1992**

Name: \_\_\_\_\_  
Section: \_\_\_\_\_

1. Compute the slope of the line tangent to the curve given by the intersection of the plane  $y = 2$  and the surface  $z = x^3y - y^2x$  at the point  $(2, 2, 8)$ .

2. Let  $f(x, y) = y^x$ ,  $(x, y > 0)$ . Compute  $f_{xy}$ . (Hint: rewrite  $f(x, y)$  using the exponential and logarithm functions).