Math 225: Calculus III

Quiz 5 *Feb. 25/27, 1997*

Name:_____

Section:_____

1. Find the equation of the plane tangent to the surface $x^3y - z^3x = 2$ at the point $(1, 3, 1)$.

2. Show that the points $(1, 1)$ and $(-1, -1)$ are critical points of the function $f(x, y) = 2y^3 - 3y + 2x^3 - 3x^2y$ and determine whether these points are local maxima, local minima, or saddle points.