Math 225: Calculus III Name:_____
Quiz 8 *April 2/4, 1996* Section:_____

1. Compute the Jacobian determinant $\dfrac{\partial(x,y)}{\partial(u,v)}$ for the change of variables $u = xy$ and $v = x/y$ where $x > 0$ and $y > 0$.

2. Find the volume of the portion of the solid sphere $x^2 + y^2 + z^2 \leq 4$ that lies above the upper nappe of the cone $z^2 = x^2 + y^2$.