Math 225: Calculus III Name:_____

Quiz 8 *Apr. 1/3, 1997* Section:_____

1. Set up a triple integral in cylindrical coordinates that gives the integral of the function $f(x, y, z) = xy$ over the solid region between the paraboloid $2x^2 + y^2 + z = 8$ and the parabolic sheet $z = y^2$. (Do not evaluate the integral).

2. Set up a triple integral in spherical coordinates that gives the integral of the function $f(x, y, z) = xy$ over the solid region inside the sphere $x^2 + y^2 + z^2 = 9$ below the xy-plane. (Do not evaluate the integral).