Quiz 4 **Time: 15 minutes**

1. Express the volume of the parallelepiped formed by the vectors $(1, 0, 0)$, $(1, 1, 0)$, (x, y, z) as a function of 3 variables.

2. Compute the partial derivatives of $z = \sqrt{x^2 - 3y}$.

Bonus: Sketch the surface $z = x^2 + y^2$.

Each problem is worth 5pts.