

Math 201 Quiz 5

Name _____ Section _____ id# _____ Serial number _____

Q1 : a) Find the spherical coordinates of a point whose rectangular coordinates are $(x, y, z) = (-2, 1, 1)$

b) Write down the equation of the hyperboloid $z^2 - x^2 - y^2 = 1$ in spherical coordinates

Q2) Use spherical coordinates to evaluate $\iiint_E xyz \, dV$ where E is the solid in the first octant between the

spheres $\rho = 1$ and $\rho = 2$ and above the cone $\varphi = \frac{\pi}{3}$