

Name:.....Serial#:.....Sec #:.....

Q.1: Describe the traces of the quadratic surface $9x^2 + 4y^2 + 36z^2 = 36$ in the planes $x = k$, $y = k$, and $z = k$. Write the interval for each k .

Q.2: Change the spherical coordinates $\left(4, \frac{\pi}{6}, \frac{\pi}{2}\right)$ to cylindrical coordinates.

Q.2: Identify the surface given by $\rho^2 (9 \sin^2(\phi) - 4 \cos^2(\phi)) = 36$.