

Math 201 Quiz 3

Name_____ id#_____ Serial number_____

Q1) (a) Find an equation for the surface obtained by rotating the line $x = 3y$ about the $x - axis$

(b) Find an equation for the surface consisting of all points that are equidistant from the point

$P(-1,0,0)$ and the plane $x = 1$

Q2) Find the limits:

$\lim_{(x,y) \rightarrow (0,0)} \frac{xy \cos y}{3x^2 + y^2}$ (Hint: try limits along axes and another line through the origin)

(b) $\lim_{(x,y) \rightarrow (0,0)} \frac{x^2 y e^y}{x^4 + 4y^2}$ (Hint: Try coordinate axes and the curve $y = x^2$).