

Name:.....ID#:.....Sec:.....Ser:.....

Q.1: Write name of the following surfaces

(a) $y = x^2 - z^2$

(b) $x^2 + y^2 - z^2 = -2$

(c) $2x^2 + 5y^3 = z^2$

(d) $4x^2 + 9y^2 + 6z^2 = 36$

Q.2: Show that the limit $\lim_{(x,y) \rightarrow (0,0)} \frac{x - 2y}{3x + y}$ does not exist.

Q.3: Find and sketch the domain of $f(x, y) = \frac{\sqrt{16 - x^2 - y^2}}{\log(x^2 + y^2 - 9)}$.