Math 225: Calculus III

Quiz 4 *September 25, 2003*

Name:_____

Section:_____

1. Find the limit $\lim\limits_{(x,y,z)\to(0,0,0)} \dfrac{xy + 2yz + 3xz}{x^2 + y^2 + z^2}$ or show it does not exist.

2. Find the slope of the line tangent to the curve of intersection of the surface $z = \sin(2x^2y - y^2)$ and the plane $x = 1$ at the point $(1, 2, 0)$.