Name:
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MAC 2313.9728
Cyr

Quiz 5
You must show all work to receive full credit!!

Problem 1. (4 points) Given $f(x, y, z) = y \tan(x + 2z)$, evaluate $f_{xz}(0, 1, \pi/8)$.

Problem 2. (a) (1 point) Evaluate $\displaystyle\lim_{(x,y)\to(1,0)} \frac{xy - y}{(x - 1)^2 + y^2}$ along the x-axis.

(b) (2 points) Evaluate $\displaystyle\lim_{(x,y)\to(1,0)} \frac{xy - y}{(x - 1)^2 + y^2}$ along the line $y = x - 1$.

(c) (1 point) What can you conclude about $\displaystyle\lim_{(x,y)\to(1,0)} \frac{xy - y}{(x - 1)^2 + y^2}$?

Problem 3. (2 points) Name the trace which is generated by intersecting a surface with a plane parallel to the x, y-coordinate plane.