

Name _____

Mathematics 206a: Multivariable Calculus
Fall Semester 2005

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Quiz #14

October 5

Suppose $\mathbf{f}(x, y, z) = (xy^2z^3, xyz + xz)$ and $\mathbf{a} = (1, 1, 1)$

A) Calculate the Jacobian matrix of \mathbf{f} at \mathbf{a} .

B) Calculate the total derivative of \mathbf{f} at \mathbf{a} .