Name_____

Mathematics 206a: Multivariable Calculus
Fall Semester 2005
David Haines
Quiz #19
October 13

For the function $f(x, y, z) = x^2 + z^2 e^y$ find:

A) The critical points. (There are an infinite number of them, which form a familiar straight line.)

B) The Hessian of f at the critical points. (I.e. Hf(**a**) for any critical point **a** .)

C) Is Hf(**a**) positive definite, negative definite, or indefinite?