Math 53 - Multivariable Calculus

Quiz # 3

September 22nd, 2011

Exercise 1. *Find the velocity, acceleration, and speed of a particle whose position vector is $\vec{r}(t) = \langle \sqrt{2}t, e^t, e^{-t} \rangle$.*

Exercise 2. *Sketch the graph of the function $f(x,y) = y^2 + 1$.*

Exercise 3. *Is $u(x,t) = \sin(x - at) + \ln(x + at)$ a solution to $u_{tt} - a^2 u_{xx} = 0$?*