Quiz #3

Name:________________________

(1) Let $A$ be the $0$ matrix. What is $e^A$?

(2) Prove that the inverse of $e^{At}$ is $e^{-At}$.

(3) Show that if $\lambda$ is an eigenvalue of $A$ with an eigenvector $v$ then $e^{\lambda t}$ is an eigenvalue of $e^{At}$ with eigenvector $v$. 