Math 314 - Fall 2006

Name _____

Quiz 4

1. Let A be a square matrix such that $A^3 = A$. Show that if A is invertible then the inverse of A is A itself.

2. Let A be a square matrix. Show that if the rows of A are linearly independent then A cannot be invertible.(*Hint*: use the fundamental Theorem of Linear Algebra)

3. Assume that A is an invertible square matrix and $AB = AC$, for some square matrices C and B. Show that $B = C$. Give an example showing that such a result may fail if A is not invertible.