Quiz 5

Student ID Number: Name _____

Math 3A, 8 AM

Please justify all your answers November 11, 2018

Please also write your full name on the back

1. Determine if the matrix is invertible. If it's invertible, find the inverse. Justify your answer.

$$\begin{bmatrix} 0 & -3 & -2 \\ 1 & -4 & -2 \\ -3 & 4 & 1 \end{bmatrix}$$

2. True or False? Justify your answers.

   (a) If A and B are $n \times n$ invertible matrices, then AB is also invertible.

   (b) If $v_1, \ldots, v_k$ are linearly independent then the matrix

$$A = \begin{bmatrix} v_1 & v_2 & \cdots & v_k & v_1 & v_2 & \cdots & v_k \end{bmatrix}$$

   has rank $2k$.