Quiz 4

Student ID Number: Name _____

Math 3A, 8 AM

Please justify all your answers November 1, 2018

Please also write your full name on the back

1. Let A and B be the matrices given below. Compute AB and BA when defined. If either product is undefined, explain why.

$$A = \begin{bmatrix} -1 & 3 \\ 2 & 4 \\ 5 & -3 \end{bmatrix} \qquad B = \begin{bmatrix} 4 & -2 \\ -2 & 3 \end{bmatrix}$$

2. True or False. Justify your answers.

   (a) Suppose A and B are matrices such that the products AB and BA are both defined. Then $AB = BA$.

   (b) Suppose the square matrix A is row equivalent to an upper triangular matrix (a matrix where all entries below the diagonal are zero). Then A is invertible.