

Math 4133 - Linear Algebra

Quiz #3 - 2013.02.23

Name: _____

1. Determine which of the following matrices are in *rref* form.

$$(a) \begin{bmatrix} 1 & 0 & 0 & 0 & 2 & 5 \\ 0 & 1 & 0 & 0 & 3 & 6 \\ 0 & 0 & 0 & 1 & -1 & -4 \end{bmatrix}$$

$$(b) \begin{bmatrix} 1 & 0 & 2 & 0 \\ 0 & 1 & 0 & -3 \\ 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 \end{bmatrix}$$

$$(c) \begin{bmatrix} 1 & 0 & 0 & 3 \\ 0 & 1 & 1 & 0 \\ 0 & 1 & 0 & -2 \end{bmatrix}$$

$$(d) \begin{bmatrix} 1 & 2 & 0 & 0 & 0 & 5 \\ 0 & 0 & 1 & 2 & 0 & 1 \\ 0 & 0 & 0 & 0 & 2 & -2 \end{bmatrix}$$

2. Write the solutions corresponding to the following *rref* matrices:

$$(a) \begin{bmatrix} 1 & 0 & 0 & 3 \\ 0 & 1 & 2 & 0 \\ 0 & 0 & 0 & 0 \end{bmatrix}$$

$$(b) \begin{bmatrix} 1 & 0 & 2 & 0 \\ 0 & 1 & 0 & -3 \\ 0 & 0 & 0 & 1 \\ 0 & 0 & 0 & 0 \end{bmatrix}$$