

Name: \_\_\_\_\_

**Math 2250, Fall 2011, Quiz 7**

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Here is a matrix  $A$  and its reduced row echelon form:

$$\begin{bmatrix} 1 & 2 & 5 & 1 & 3 \\ -2 & 2 & 4 & 4 & 3 \\ -4 & 1 & 1 & 5 & 1 \\ 2 & 1 & 3 & -1 & 3 \end{bmatrix} \longrightarrow \begin{bmatrix} 1 & 0 & 1/3 & -1 & 0 \\ 0 & 1 & 7/3 & 1 & 0 \\ 0 & 0 & 0 & 0 & 1 \\ 0 & 0 & 0 & 0 & 0 \end{bmatrix}$$

Give bases for  $\text{Null}(A)$  and  $\text{Col}(A)$ .

Do the dimensions of these subspaces add up to the correct total?

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