

Name \_\_\_\_\_

Mathematics 205: Linear Algebra  
Fall Semester 2004  
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Quiz #18  
October 14

Below is a matrix  $A$  and an echelon form of  $A$ .

$$A = \begin{bmatrix} 0 & 3 & -6 & 6 & 4 & -5 \\ 3 & -7 & 8 & -5 & 8 & 9 \\ 3 & -9 & 12 & -9 & 6 & 15 \end{bmatrix} \sim \begin{bmatrix} 1 & 0 & -2 & 3 & 0 & -24 \\ 0 & 1 & -2 & 2 & 0 & -7 \\ 0 & 0 & 0 & 0 & 1 & 4 \end{bmatrix}$$

A. Find a basis for Col  $A$

B. Find a basis for Nul  $A$

C. What is the dimension of Col  $A$ ?

D. What is the dimension of Nul  $A$ ?