Name: _____

Quiz 7
Math 2250, Fall 2015 **October 28, 2015** **R. Bruner**

1. Find the coordinates of the vector $\begin{bmatrix} -11 \\ -3 \end{bmatrix}$ with respect to the basis $\begin{bmatrix} 1 \\ 3 \end{bmatrix}, \begin{bmatrix} 3 \\ 4 \end{bmatrix}$.

2. The row operations $R_1 \longleftrightarrow R_2$, $R_2 - 3R_1 \longrightarrow R_2$, $2R_3 \longrightarrow R_3$, and $R_3 + 4R_2 \longrightarrow R_3$ were used to reduce the matrix A to

$$\begin{bmatrix} 1 & 1 & 7 \\ 0 & 2 & 3 \\ 0 & 0 & 6 \end{bmatrix}$$

What is $\det(A)$?