Name:__________________________

Instructions: You have 10 minutes to take this quiz, for a total of 10 points. Good luck, and remember: I’ve got one less row-reduction, one less row-reduction...

1. (5 points) Using the **reduced row-echelon form**, find the general solution of the linear system corresponding to the following **augmented** matrix.

\[
\begin{bmatrix}
2 & -3 & 5 & 5 \\
1 & -2 & -1 & -5 \\
3 & -4 & 11 & 15 \\
\end{bmatrix}
\]
2. (5 points) For what $c$ is \[
\begin{pmatrix}
c \\
0 \\
-c
\end{pmatrix}
\] in \(\text{Span}\left\{ \begin{pmatrix}
1 \\
0 \\
1
\end{pmatrix}, \begin{pmatrix}
1 \\
-1 \\
2
\end{pmatrix}, \begin{pmatrix}
c \\
1 \\
1
\end{pmatrix}, \begin{pmatrix}
1 \\
2 \\
-1
\end{pmatrix}\right\} \)?