	Name:
	Math 8 Quiz 10.3
	Use matrix methods (Gaussian elimination or Gauss Jordan) to solve: (12 points)
	-x-2y-z=-3 Aemember-There are many different
	2x+y+z=16 x+y+zz=9 ways to go so our matrices might look
′,	different but answers must be some
	You must obtain row echelon form or reduced row echelon form Be sure to label operations
	performed at each step. You can dwide fow 2 by -3 to
	Completely get the one. But I vid this
	$\begin{bmatrix} -1 & -2 & -1 & & -3 \end{bmatrix} - R \rightarrow R$
	$\begin{bmatrix} -1 & -2 & -1 & & -3 \\ 2 & 1 & 1 & & 16 \\ 1 & 1 & 2 & & 9 \end{bmatrix} \xrightarrow{\begin{array}{c} -R \\ > R \\ > R_{2} \end{array}} \begin{bmatrix} 1 & 2 & 1 & & 3 \\ 0 & -3 & -1 & & 10 \\ 0 & -1 & 1 & & 6 \end{bmatrix} \xrightarrow{\begin{array}{c} -R \\ > R_{3} \end{array}} \begin{bmatrix} R_{2} \\ > R_{3} \end{bmatrix}$ Then $\begin{bmatrix} -1 & -2 & -1 & & -3 \\ 2R_{1} + R_{2} + R_{3} \end{bmatrix} \xrightarrow{\begin{array}{c} -R \\ > R_{3} \end{array}} \begin{bmatrix} 1 & 2 & 1 & & 3 \\ 0 & -3 & -1 & & 10 \\ 0 & -1 & 1 & & 6 \end{bmatrix} \xrightarrow{\begin{array}{c} -R \\ > R_{3} \end{array}} \begin{bmatrix} R_{2} \\ > R_{3} \end{bmatrix}$
	RTR27R
	$\begin{bmatrix} 1 & 1 & 2 & & 9 \end{bmatrix}$ \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
	not'="
	$\begin{bmatrix} 1 & 2 & 1 & & 3 \end{bmatrix} \geqslant R_2 + R_3 \rightarrow P_3$
	$\begin{vmatrix} 0 & 1 & -1 & & -6 \end{vmatrix} \longrightarrow \begin{vmatrix} 1 & 1 & & 1 & & 1 \end{vmatrix}$
	$\begin{bmatrix} 0 & -3 & -1 & & 10 \end{bmatrix}$ $\begin{bmatrix} 0 & 0 & -4 & & -8 \end{bmatrix}$
	$\begin{bmatrix} 0 & 0 & -4 & & -8 \end{bmatrix}$
	[1 2 1 3] Ray techelon from Con
	0 1 1 1 c (usibe exelent the last Subabbil
	10 1 -1 -6 with system is been substitute
	[1 2 1 3] Row ecnelon form. Can 0 1 -1 -6] write system & back substitute or keep going to def reduced row echelon form
	[1 0 0 9]
	$\begin{bmatrix} 1 & 0 & 0 & & 9 \\ 0 & 1 & 0 & & -4 \\ 0 & 0 & 1 & & 2 \end{bmatrix}$ $\begin{pmatrix} 0 & -4 & 2 \\ 0 & 0 & 1 & & 2 \end{pmatrix}$ $\begin{pmatrix} 0 & -4 & 2 \\ 0 & 0 & 1 & & 2 \end{pmatrix}$ $\begin{pmatrix} 0 & -4 & 2 \\ 0 & 0 & 1 & & 2 \end{pmatrix}$
	* Charle 11 3 es.
	[0 0 1 2]