Practice for 5. 3 The inverse of a square matrix

The following problems will help you practice the material you learned today. Once you are finished check your solutions. Once done, you can work on your WeBWorK homework.

1. Determine the inverse of these matrices if they exist:

a. $\begin{bmatrix} 3 & 2 \\ -1 & 5 \end{bmatrix}$ b. $\begin{bmatrix} 0 & -2 & 1 \\ 3 & 0 & 4 \end{bmatrix}$ c. $\begin{bmatrix} 1 & 4 & 7 \\ 0 & 1 & 2 \\ 0 & 0 & 3 \end{bmatrix}$ d. $\begin{bmatrix} 1 & 2 & 2 \\ 3 & 7 & 9 \\ -1 & -4 & -7 \end{bmatrix}$

2. Use your work on problem 1 to solve these systems:

a. $3x + 2y = -5$
$-x + 5y = 6$

b. $x + 2y + 2z = 8$
$3x + 7y + 9z = 1$
$-x - 4y - 7z = 0$