Linear Algebra Review

(Gauss Elimination) Suggested problems

No due date

1. Solve for x when Ax=b for the following problems:
   a. $A = \begin{bmatrix} 1 & 3 \\ 2 & 1 \end{bmatrix} b = \begin{bmatrix} 1 \\ 1 \end{bmatrix}$
   b. $A = \begin{bmatrix} 1 & 1 \\ 2 & 3 \end{bmatrix} b = \begin{bmatrix} 3 \\ 4 \end{bmatrix}$
   c. $A = \begin{bmatrix} 1 & 1 \\ 2 & -2 \end{bmatrix} b = \begin{bmatrix} 4 \\ 2 \end{bmatrix}$
   d. $A = \begin{bmatrix} 1 & 3 & 1 \\ -4 & -9 & 2 \\ 0 & 3 & 6 \end{bmatrix} b = \begin{bmatrix} 0 \\ 0 \\ 0 \end{bmatrix}$
   e. $A = \begin{bmatrix} 1 & 3 & 1 \\ -4 & -9 & 2 \\ 0 & 3 & 6 \end{bmatrix} b = \begin{bmatrix} 1 \\ -1 \\ -3 \end{bmatrix}$
   f. $A = \begin{bmatrix} 1 & 3 & -5 \\ 1 & 4 & -8 \\ -3 & -7 & 9 \end{bmatrix} b = \begin{bmatrix} 1 \\ -1 \\ -3 \end{bmatrix}$
   g. $A = \begin{bmatrix} 1 & 2 & -1 \\ 2 & 2 & 2 \\ 1 & -1 & 2 \end{bmatrix} b = \begin{bmatrix} 2 \\ 12 \\ 5 \end{bmatrix}$
2. Calculate the determinant of A from 1a-g.