Systems of Equations and Matrices

1.Which of the following is **the augmented matrix** for the system of linear equations:

$$2x - 3y + z = 4$$
$$y - 2z + x - 5 = 0$$
$$3 - 2x = 4y - z$$

a. $\left[\begin{array}{ccc\|c} 2 & -3 & 1 & 4 \\ 1 & 1 & -2 & 5 \\ -2 & -4 & 1 & -3 \end{array}\right]$	b. $\left[\begin{array}{ccc\|c} 2 & -3 & 1 & 4 \\ 1 & 1 & -2 & -5 \\ -2 & -4 & 1 & -3 \end{array}\right]$
c. $\left[\begin{array}{ccc\|c} 2 & -3 & 1 & 4 \\ 1 & 1 & -2 & 5 \\ -2 & 4 & 1 & -3 \end{array}\right]$	d. $\left[\begin{array}{ccc\|c} 2 & -3 & 1 & 4 \\ 1 & 1 & -2 & 5 \\ -2 & -4 & 1 & 3 \end{array}\right]$

2.Find **AB** if possible:

$$A = \begin{bmatrix} 2 & -3 \\ -1 & 3 \end{bmatrix}, \quad B = \begin{bmatrix} 1 & 0 \\ -1 & 1 \\ 2 & -2 \end{bmatrix}$$

a. $\begin{bmatrix} 2 & -5 \\ -3 & 16 \end{bmatrix}$	b. $\begin{bmatrix} 2 & -3 \\ -3 & 6 \\ 6 & -12 \end{bmatrix}$
c. $\begin{bmatrix} 2 & -5 \\ 10 & -1 \\ 4 & -8 \end{bmatrix}$	d. *Not defined*