

NAME: _____ ID: _____ Section: _____

Exercise 1 (10 points)

Transform the augmented matrix of the system (S) to echelon form and then solve it.

$$\begin{cases} 3x_1 - 6x_2 - 2x_3 = 1 \\ 2x_1 - 4x_2 + x_3 = 17 \\ x_1 - 2x_2 - 2x_3 = -9 \end{cases}$$

Exercise 2 (10 points)Write the homogeneous system (S) in the form $AX = 0$ and give the solution in vector form:

$$\begin{cases} x_1 - 3x_2 + 7x_5 = 0 \\ x_3 - 2x_5 = 0 \\ x_4 - 10x_5 = 0 \end{cases}$$