Name: _____

MATH 108
Spring 2023
HW 12: Due 03/31

"Taking on a challenge is a lot like riding a horse, isn't it? If you're comfortable while you're doing it, you're probably doing it wrong."
–Ted Lasso, Ted Lasso

Problem 1. (10pt) Determine whether $(x_1, x_2) = (-1, 2)$ is a solution to the following system of equations:

$$4x_1 - 5x_2 = -14$$

$$3x_1 + 7x_2 = 17$$

Problem 2. (10pt) Show that $(x_1, x_2) = (3, 1)$ is a solution to the following system of equations:

$$x_1 + 6x_2 = 9$$

$$-5x_1 + 4x_2 = -11$$

Also, writing this system of equations as $A\mathbf{x} = \mathbf{b}$, determine A, $\mathbf{b}$, and the solution vector to this system.