

MATH 335 Quiz 1

Name: _____

Show all work. 10 points each.

1. Write the matrix that represents the linear system reduce the matrix and use it to solve the linear system. Hint there is a free variable.

$$x_2 + 4x_3 = -5$$

$$x_1 + 3x_2 + 5x_3 = -2$$

2. Let $A = \begin{bmatrix} 1 & 2 & 4 \\ 0 & 1 & 15 \\ -2 & -4 & -3 \end{bmatrix}$ and $\mathbf{b} = \begin{bmatrix} -2 \\ 2 \\ 9 \end{bmatrix}$. Is \mathbf{b} in the span of the columns of A ?