

MATH 3110 - Spring 2021

Learning Activity 1

Full Name:_____

All computations must be shown.

1. (5 points) Mark each statement TRUE or FALSE. If False, justify.

(a) Two equivalent linear systems can have different solution sets.

(b) A consistent linear system has one or more solutions.

2. (5 points) Solve the following linear system by using elementary row operations.

$$x + 2y + 4z = 5$$

$$2x + 4y + 5z = 4$$

$$4x + 5y + 4z = 2$$

3. (5 points) Find the value(s) of h such that the following matrix is the augmented matrix of a consistent linear system.

$$\left[\begin{array}{cc|c} 1 & -1 & 2 \\ -1 & h & 0 \end{array} \right]$$