Name:	
J#:	Dr. Clontz
Date:	

MASTERY QUIZ DAY 10　　　　　　　　　　　　　　　Math 237 – Linear Algebra
Version 1　　　　　　　　　　　　　　　　　　　　　　　　　Fall 2017

Show all work. Answers without work will not receive credit. You may use a calculator, but you must show all relevant work to receive credit for a standard.

Standard E1.	Mark:

Write an augmented matrix corresponding to the following system of linear equations.

$$x_1 + 4x_3 = 1$$
$$x_2 - x_3 = 7$$
$$x_1 - x_2 + 3x_4 = -1$$

Standard E3.	Mark:

Solve the system of equations

$$x + 3y - 4z = 5$$
$$3x + 9y + z = 2$$

	Mark:
Standard E4.	

Find a basis for the solution set of the system ...

	Mark:
Standard V1.	

Let V be the set of all real numbers together with the operations $\oplus$ and $\odot$ defined by, for any $x, y \in V$ and $c \in \mathbb{R}$,

$$x \oplus y = x + y - 3$$
$$c \odot x = cx - 3(c - 1)$$

Determine if V is a vector space or not.