Name:
J#:
Date:

Dr. Clontz

MASTERY QUIZ DAY 8 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.

$$\begin{aligned} x + 3y - 4z + w &= 5 \\ 3x + 9y + z - 7w &= 0 \\ x - z + w &= 1 \end{aligned}$$

Standard E3.	Mark:

Solve the system of equations

$$\begin{aligned} -3x + y &= 2 \\ -8x + 2y - z &= 6 \\ 2y + 3z &= -2 \end{aligned}$$

Standard E4.	Mark:

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

Standard V1.	Mark:

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.