Name:	
J#:	Dr. Clontz
Date:	

## MASTERY QUIZ DAY 12

Math 237 – Linear Algebra Fall 2017

Version 3

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.

Let V be the set of all points on the line x + y = 2 with the operations, for any  $(x_1, y_1), (x_2, y_2) \in V$ ,  $c \in \mathbb{R}$ ,

$$(x_1, y_1) \oplus (x_2, y_2) = (x_1 + x_2 - 1, y_1 + y_2 - 1)$$
  
 $c \odot (x_1, y_1) = (cx_1 - (c - 1), cy_1 - (c - 2))$ 

Determine if V is a vector space or not.

Standard V3.	Mark:

Determine if ... spans  $\overline{\mathbb{R}^3}$ 

Standard V4.	Mark:
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Determine if ... is a subspace of