Name:	
J#:	Dr. Clontz
Date:	

MASTERY QUIZ DAY 15 Math 237 – Linear Algebra
Version 5 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 V2.	Mark:

Determine if $\begin{bmatrix} 3 \\ -2 \\ 4 \end{bmatrix}$ belongs to the span of the set $\left\{ \begin{bmatrix} 1 \\ 2 \\ -3 \end{bmatrix}, \begin{bmatrix} 2 \\ 4 \\ -6 \end{bmatrix}, \begin{bmatrix} 0 \\ 0 \\ 0 \end{bmatrix} \right\}$.

Standard S1.	Mark:

Determine if the set of polynomials $\left\{x^2+x, x^2+2x-1, x^2+3x-2\right\}$ is linearly dependent or linearly independent

Standard S3.	Mark:

Let W be the subspace of $\mathcal{P}_2$ given by $W = \text{span}\left(\left\{-3x^2 - 8x, x^2 + 2x + 2, -x + 3\right\}\right)$. Find a basis for W.

Standard S4.	Mark:

Let W be the subspace of $\mathcal{P}_3$ given by
$W = \text{span}\left(\left\{x^3 - x^2 + 3x - 3, 2x^3 + x + 1, 3x^3 - x^2 + 4x - 2, x^3 + x^2 + x - 7\right\}\right)$. Compute the dimension of W.

Additional Notes/Marks	