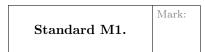
Name:	
J#:	Dr. Clontz
Date:	

## MASTERY QUIZ DAY 28

Math 237 – Linear Algebra Fall 2017

## Version 1

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

$$A = \begin{bmatrix} 0 & 0 & -1 & -1 \\ 1 & 3 & 7 & 2 \end{bmatrix} \qquad B = \begin{bmatrix} 0 & 1 & 7 & 7 \\ -1 & -2 & 0 & 4 \\ 0 & 0 & 1 & 5 \end{bmatrix} \qquad C = \begin{bmatrix} 3 & 2 \\ 0 & 1 \\ -2 & -1 \end{bmatrix}$$

Exactly one of the six products AB, AC, BA, BC, CA, CB can be computed. Determine which one, and compute it.

Standard M2.	Ма	rk:			
Determine if the matrix	$\begin{bmatrix} 1 \\ 1 \\ 2 \\ 1 \end{bmatrix}$	3 3 6 3	$ \begin{array}{c} 3 \\ -1 \\ 3 \\ -2 \end{array} $	$\begin{bmatrix} 7 \\ -1 \\ 8 \\ -3 \end{bmatrix}$	is invertible.

Standard M3.

Mark:

Find the inverse of the matrix  $\begin{bmatrix} 1 & -4 & 5 \\ -5 & 24 & -28 \\ 1 & -5 & 6 \end{bmatrix}.$ 

Standard G2.

Mark:

Compute the eigenvalues, along with their algebraic multiplicities, of the matrix  $\begin{bmatrix} 9 & -3 & 2 \\ 19 & -6 & 5 \\ -5 & 2 & 0 \end{bmatrix}$ .

Standard G3.

Mark:

Compute the eigenspace of the eigenvalue -1 in the matrix  $\begin{bmatrix} 4 & -2 & -1 \\ 15 & -7 & -3 \\ -5 & 2 & 0 \end{bmatrix}$ .

Additional Notes/Marks