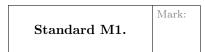
Name:	
J#:	Dr. Clontz
Date:	

## MASTERY QUIZ DAY 28

Math 237 – Linear Algebra Fall 2017

## Version 5

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

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

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

Standard M2.	Mark	-		
Determine if the matrix	$\begin{bmatrix} 1 \\ 2 \\ -1 \end{bmatrix}$	$ \begin{array}{r}     \hline     3 \\     7 \\     -1 \end{array} $	$\begin{bmatrix} -1 \\ 0 \\ 5 \end{bmatrix}$	is invertible

Mark: Standard M3.

Find the inverse of the matrix  $\begin{bmatrix} 3 & -1 & 0 \\ 2 & 1 & 1 \\ 0 & 1 & 1 \end{bmatrix}$ .

Standard G2.

Mark:

Let  $A = \begin{bmatrix} -3 & 1 & 0 \\ -8 & 2 & -1 \\ 0 & 2 & 3 \end{bmatrix}$ . List the eigenvalues of A along with their algebraic multiplicities.

Standard G3.

Mark:

Compute the eigenspace associated to the eigenvalue 2 in the matrix  $\begin{bmatrix} -1 & 1 & 0 \\ -9 & 5 & 0 \\ 15 & -5 & 2 \end{bmatrix}.$ 

Additional Notes/Marks