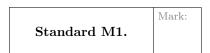
Name:	
J#:	Dr. Clontz
Date:	

MASTERY QUIZ DAY 28

Math 237 – Linear Algebra Fall 2017

Version 4

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

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

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	$\begin{bmatrix} 2 \\ 1 \\ 3 \\ 4 \end{bmatrix}$	$ \begin{array}{c} 1 \\ -1 \\ 2 \\ 1 \end{array} $	$0\\0\\-1\\2$	$\begin{bmatrix} 3 \\ 1 \\ 7 \\ 0 \end{bmatrix}$	is invertible.

Standard M3.

Find the inverse of the matrix $\begin{bmatrix} 4 & -1 & -8 \\ 2 & 1 & 3 \\ 1 & 1 & 4 \end{bmatrix}.$

Standard G2.

Mark:

Compute the eigenvalues, along with their algebraic multiplicities, of the matrix $\begin{bmatrix} 9 & -3 & 2 \\ 23 & -8 & 5 \\ 2 & -1 & 1 \end{bmatrix}.$

Standard G3.

Mark:

Find the eigenspace associated to the eigenvalue 1 in the matrix $A = \begin{bmatrix} -3 & 1 & 0 \\ -8 & 2 & -1 \\ 0 & 2 & 3 \end{bmatrix}$

Additional Notes/Marks