WebAssign CH 2.1 (Homework) Yinglai Wang

MA 265 Spring 2013, section 132, Spring 2013

Instructor: Alexandre Eremenko

Current Score: 20 / 20 Due: Thursday, January 24 2013 11:40 PM EST

1. 5/5 points | Previous Answers

KolmanLinAlg9 2.1.002.

Find a row echelon form of each of the given matrices. Record the row operations you perform, using the notation for elementary row operations.

(a)
$$A = \begin{bmatrix} -1 & 1 & -1 & 0 & 3 \\ -3 & 4 & 1 & 1 & 10 \\ 4 & -6 & -4 & -2 & -14 \end{bmatrix}$$

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0	1		4	1	1	→
0	0		0	0	0	
t	b		t	t	t	1

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(b)
$$A = \begin{bmatrix} 3 & 2 & -2 \\ 1 & 1 & -1 \\ 3 & 3 & -2 \end{bmatrix}$$



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2. 5/5 points | Previous Answers

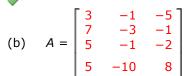
KolmanLinAlg9 2.1.006.

Find the reduced row echelon form of each of the given matrices. Record the row operations you perform, using the notation for elementary row operations.

(a)
$$A = \begin{bmatrix} 3 & 2 & 4 \\ 1 & 1 & 2 \\ -3 & -3 & -5 \end{bmatrix}$$

1	0	0
0	1	0
0	0	1





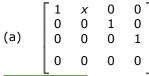
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3. 5/5 points | Previous Answers

KolmanLinAlg9 2.1.008.

Let x, y, z, and w be nonzero real numbers. Label each of the following matrices REF if it is in row echelon form, RREF if it is in reduced row echelon form, or N if it is not REF and not RREF.



- REF
 RREF
 N
- (b) $\begin{bmatrix} 0 & y & 0 \\ 1 & 1 & 0 \\ 0 & 0 & 1 \end{bmatrix}$ REF
- RREF

 N
- (c) $\begin{bmatrix} 1 & 0 & x \\ 0 & 1 & y \\ 0 & 0 & 1 \end{bmatrix}$
- REFRREFN

4. 5/5 points | <u>Previous Answers</u>

KolmanLinAlg9 2.1.012.

Let

$$A = \begin{bmatrix} 1 & 2 & 3 & 4 & 5 \\ 2 & 1 & 3 & -1 & 2 \\ 3 & 1 & 2 & 4 & 1 \end{bmatrix}.$$

(a) Find a matrix in column echelon form that is column equivalent to A.

1	0	0	0	0	
0	1	0	0	0] 🛶
0	0	1	0	0	

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(b) Find a matrix in reduced column echelon form that is column equivalent to A.

•	•			•		
	1	0	0	0	0	
	0	1	0	0	0	
	0	0	1	0	0	
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