

NAME: \_\_\_\_\_ ID: \_\_\_\_\_ Section: \_\_\_\_\_

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**Exercise 1** (5 points)

Use Gauss-Jordan elimination to find the inverse (if it exists) of the matrix

$$\begin{pmatrix} 2 & 1 & 1 \\ 1 & 0 & 1 \\ 2 & 0 & 1 \end{pmatrix}$$

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**Exercise 2** (5 points)Let  $A$  and  $B$  be two **symmetric matrices**. Which one of the following assertions is true? (Only one answer is accepted=**Check only one box**)

1	$AB$ is symmetric	
2	$BA$ is symmetric	
3	$ABA$ is symmetric	
4	$A+AB$ is symmetric	
5	$B+BA$ is symmetric	

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**Exercise 1** (5 points)

Use Gauss-Jordan elimination to find the inverse (if it exists) of the matrix  $\begin{pmatrix} 3 & 1 & 0 \\ 1 & 1 & 0 \\ 1 & 1 & 1 \end{pmatrix}$

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**Exercise 2** (5 points)

Let  $M$  and  $N$  be two **symmetric matrices**. Which one of the following assertions is true? (Only one answer is accepted=**Check only one box**)

1	NMN is symmetric	
2	MN is symmetric	
3	NM is symmetric	
4	N+NM is symmetric	
5	M+MN is symmetric	

