You can preview this quiz, but if this were a real attempt, you would be blocked because:

This quiz is not currently available

Question **1**

Not complete

Points out of 3.00

Use these questions as a way to review and solidify the language of linear algebra as well as computations and conceptual understanding. If you are stuck, use ASULearn resources and your notes to help you. I'm also happy to help in office hours.

Write all responses in your notes since you'll be comparing them with the re-engage later.

By hand, and in your notes, reduce the augmented matrix $\begin{bmatrix} -2 & 1 & 1 & 0 \\ 2 & -1 & -3 & 0 \\ -4 & 2 & 2 & 0 \end{bmatrix}$ using strict Gaussian to row echelon form (don't scale the rows! The first row will remain the same.).

When you are finished, type Gaussian in the box

Once in row echelon form, circle the pivots in your notes.

When you are finished, type pivots in the box

Next, write the solutions in parameterized vector form and show work in your notes.

When you are finished, type parameter in the box

Check

Question **2**

Not complete

Points out of 1.00

By hand and in your notes, multiply $\begin{bmatrix} 5 & 8 \\ -2 & 3 \end{bmatrix} \begin{bmatrix} -1 \\ 1 \end{bmatrix}$. Show work to multiply a matrix and a column vector, but no need to reduce.

When you are finished, type multiply in the box

Check

Question **3**

Not complete

Points out of 1.00

How can we check for linear independence of 3 vectors in $\mathbb{R}^3$? Write down at least one way in your notes.

When you are finished, type independent in the box

Check

Question **4**

Not complete

Points out of 1.00

If the span of a set of vectors is $s \begin{bmatrix} 1 \\ 0 \\ -1 \end{bmatrix} + t \begin{bmatrix} 3 \\ -7 \\ 5 \end{bmatrix}$, then what is the geometry of the span? Respond in your notes.

When you are finished, type span in the box

Check

Question **5**

Not complete

Points out of 1.00

If we use the implicitplot3d command in Maple on the equations corresponding to the rows of the augmented matrix $\begin{bmatrix} 1 & 2 & 3 & 4 \\ 0 & 5 & 6 & 7 \end{bmatrix}$, what would we see? Fill in both blanks in your notes: we would see 2 _____ intersecting in a _____

When you are finished, type implicitplot3d in the box

Check

Question **6**

Not complete

Points out of 2.00

First, if we use spacecurve commands in Maple on the vectors corresponding to the columns of the coefficient matrix of this augmented matrix $\begin{bmatrix} 1 & 2 & 3 & 4 \\ 0 & 5 & 6 & 7 \\ 0 & 0 & 0 & 9 \end{bmatrix}$, and display them together, what would we see? Respond in your notes

When you are finished, type spacecurve in the box

Next, if we use use a spacecurve command in Maple on the equal column of the augmented matrix above and display it with the other column vectors, would it be in the same space as the others or not? Respond in your notes

When you are finished, type space in the box

Check

Question **7**

Not complete

Points out of 1.00

Can $A\vec{x} = \vec{0}$ ever be inconsistent? Why or why not? Respond in your notes.

When you are finished, type inconsistent in the box

Check

Question **8**

Not complete

Points out of 1.00

What can we say about the columns of $\begin{bmatrix} 1 & 4 & 7 \\ 2 & 5 & 8 \\ 3 & 6 & 9 \end{bmatrix}$? Respond in your notes.

When you are finished, type columns in the box

Check