

✔ Congratulations! You passed!

Grade received 100% To pass 80% or higher

Go to next item

This is an **ungraded quiz**. This means that, even though you will get a grade for the quiz, the **quiz score will not count in your final grade**.

1. Calculate the determinant of the following matrix. Is the matrix singular or non-singular?

1 / 1 point

$$A = \begin{bmatrix} 2 & 3 \\ 2 & 4 \end{bmatrix}$$

Hint: To find the determinant apply the formula  $ad - bc$ . A matrix of determinant 0 is singular, while a determinant different than 0 represents a complete system, thus a non-singular matrix.

- ☐  $\det(A) = 0$ . The matrix is singular.
- ☐  $\det(A) = -2$ . The matrix is singular.
- ☒  $\det(A) = 2$ . The matrix is non-singular.
- ☐  $\det(A) = 2$ . The matrix is singular.



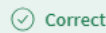
You have correctly calculated the determinant and identified the singularity of the matrix.

2. Determine if this matrix has linearly dependent or independent rows.

1 / 1 point

$$\begin{bmatrix} 1 & 2 \\ 2 & 3 \end{bmatrix}$$

- ☒ Linearly independent
- ☐ Linearly dependent
- ☐ It cannot be determined



The matrix has linearly independent rows. You cannot obtain one row by using row operations on the other row.