

Question 1 of 8

Evaluate the determinant of the matrix.

$$H = \begin{bmatrix} 5 & -1 \\ 3 & 6 \end{bmatrix}$$

The determinant is .

Question 2 of 8

Evaluate the determinant of the matrix.

$$V = \begin{bmatrix} \log x & \log x \\ 4 & 2 \end{bmatrix}$$

The determinant is .

Question 3 of 8

Evaluate the determinant of the matrix.

$$G = \begin{bmatrix} x & 49 \\ 9 & x \end{bmatrix}$$

The determinant is .

Question 4 of 8

Simplify the exponential expression.

$$(-1)^9$$

$$(-1)^9 = \boxed{}$$

Question 5 of 8

Evaluate the determinant of the matrix.

$$A = \begin{bmatrix} \frac{5}{3} & \frac{1}{2} \\ 2 & 3 \end{bmatrix}$$

The determinant is $\boxed{}$.

Question 6 of 8

Evaluate the determinant of the matrix and state whether the matrix is invertible.

$$B = \begin{bmatrix} -9 & -10 & -1 \\ 0 & 0 & -10 \\ 2 & -3 & 3 \end{bmatrix}$$

Part 1 of 2

The determinant is $\boxed{}$.

The matrix invertible.

Question 7 of 8

Given a square matrix A , if either of the following conditions are true, then $|A| = 0$.

- A row (or column) of A consists entirely of zeros.
- One row (or column) is a constant multiple of another row (or column).

Given $A = \begin{bmatrix} -3 & -5 & 5 \\ -1 & 2 & 3 \\ 0 & 0 & 0 \end{bmatrix}$, find $|A|$.

$|A| =$. This demonstrates condition.

Question 8 of 8

Evaluate.

$$\begin{vmatrix} a & 0 & 0 \\ 0 & b & 0 \\ 0 & 0 & c \end{vmatrix} =$$