

The Secret of Finding Determinant of Any Size of a Square Matrix Pre Calculus Honors 9.7

Lesson 247 | Precalculus | Determinants and inverse matrices

<https://www.youtube.com/watch?v=zvREtvUCKs0>

Original practice aligned to the saved video title.

Name: _____ Date: _____ Show your reasoning.

01

Find the determinant and inverse, if it exists, of $A = \begin{bmatrix} 7 & 4 \\ 1 & 13 \end{bmatrix}$.

02

Find the determinant and inverse, if it exists, of $A = \begin{bmatrix} 5 & 2 \\ 1 & 10 \end{bmatrix}$.

03

Find the determinant and inverse, if it exists, of $A = \begin{bmatrix} 8 & 14 \\ 1 & 2 \end{bmatrix}$.

The Secret of Finding Determinant of Any Size of a Square Matrix Pre Calculus Honors 9.7

Lesson 247 | Precalculus | Determinants and inverse matrices

<https://www.youtube.com/watch?v=zvREtvUCKs0>

Original practice aligned to the saved video title.

Name: _____ Date: _____ Show your reasoning.

04

Find the determinant and inverse, if it exists, of $A = \begin{bmatrix} 11 & 5 \\ 1 & 8 \end{bmatrix}$.

05

Find the determinant and inverse, if it exists, of $A = \begin{bmatrix} 6 & 8 \\ 1 & 14 \end{bmatrix}$.

06

Find the determinant and inverse, if it exists, of $A = \begin{bmatrix} 4 & 14 \\ 1 & 2 \end{bmatrix}$.

The Secret of Finding Determinant of Any Size of a Square Matrix Pre Calculus Honors 9.7

Lesson 247 | Precalculus | Determinants and inverse matrices

<https://www.youtube.com/watch?v=zvREtvUCKs0>

Original practice aligned to the saved video title.

01

Find the determinant and inverse, if it exists, of $A = \begin{bmatrix} 7 & 4 \\ 1 & 13 \end{bmatrix}$.

$\det A = 7 \cdot 13 - 4 = 87$. $A^{-1} = (1/87) \begin{bmatrix} 13 & -4 \\ -1 & 7 \end{bmatrix}$. Multiplying by A gives the identity.

02

Find the determinant and inverse, if it exists, of $A = \begin{bmatrix} 5 & 2 \\ 1 & 10 \end{bmatrix}$.

$\det A = 5 \cdot 10 - 2 = 48$. $A^{-1} = (1/48) \begin{bmatrix} 10 & -2 \\ -1 & 5 \end{bmatrix}$. Multiplying by A gives the identity.

03

Find the determinant and inverse, if it exists, of $A = \begin{bmatrix} 8 & 14 \\ 1 & 2 \end{bmatrix}$.

$\det A = 8 \cdot 2 - 14 = 2$. $A^{-1} = (1/2) \begin{bmatrix} 2 & -14 \\ -1 & 8 \end{bmatrix}$. Multiplying by A gives the identity.

The Secret of Finding Determinant of Any Size of a Square Matrix Pre Calculus Honors 9.7

Lesson 247 | Precalculus | Determinants and inverse matrices

<https://www.youtube.com/watch?v=zvREtvUCKs0>

Original practice aligned to the saved video title.

04

Find the determinant and inverse, if it exists, of $A = \begin{bmatrix} 11 & 5 \\ 1 & 8 \end{bmatrix}$.

$\det A = 11 \cdot 8 - 5 = 83$. $A^{-1} = (1/83) \begin{bmatrix} 8 & -5 \\ -1 & 11 \end{bmatrix}$. Multiplying by A gives the identity.

05

Find the determinant and inverse, if it exists, of $A = \begin{bmatrix} 6 & 8 \\ 1 & 14 \end{bmatrix}$.

$\det A = 6 \cdot 14 - 8 = 76$. $A^{-1} = (1/76) \begin{bmatrix} 14 & -8 \\ -1 & 6 \end{bmatrix}$. Multiplying by A gives the identity.

06

Find the determinant and inverse, if it exists, of $A = \begin{bmatrix} 4 & 14 \\ 1 & 2 \end{bmatrix}$.

$\det A = 4 \cdot 2 - 14 = -6$. $A^{-1} = (1/-6) \begin{bmatrix} 2 & -14 \\ -1 & 4 \end{bmatrix}$. Multiplying by A gives the identity.