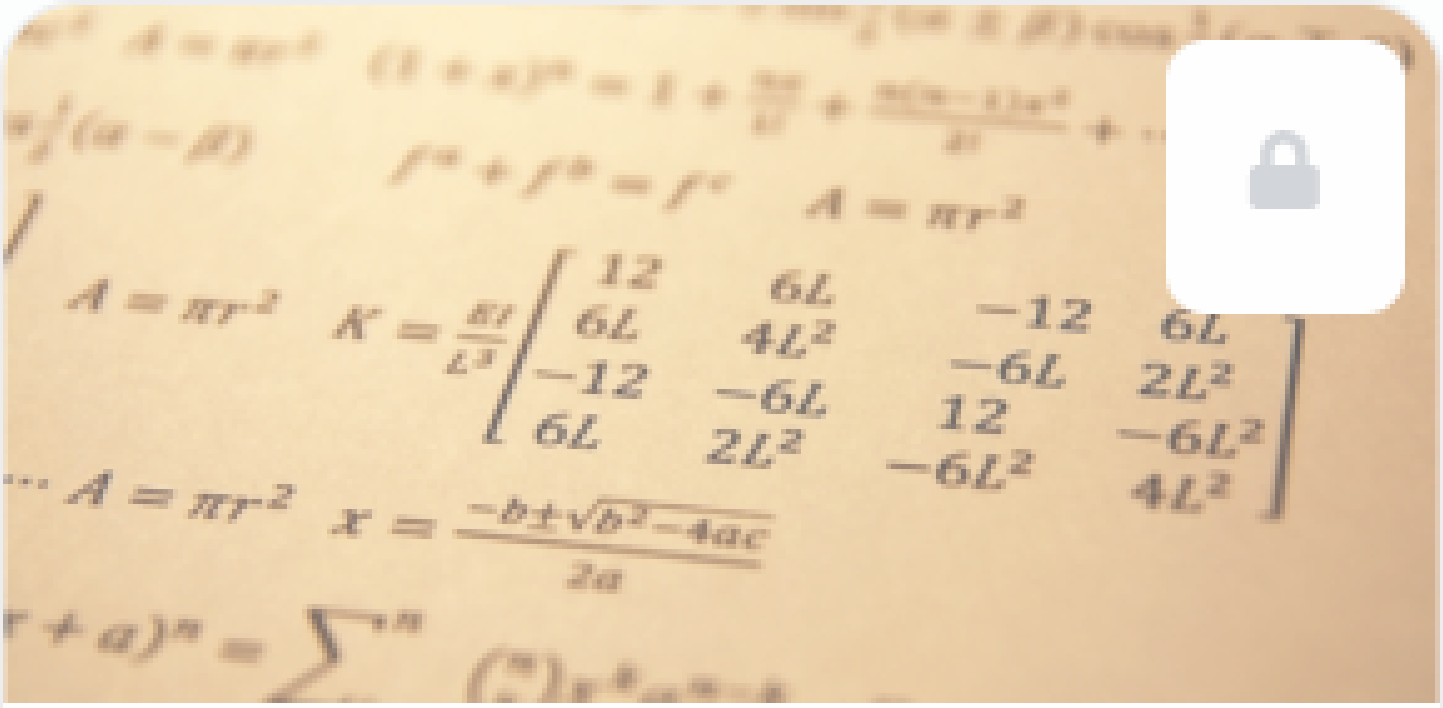
https://t.me/+yI_iw77XeiFlZTg0



Linear Systems and Matrices

9. Identifying Parts of Matrices

Lesson

Locked by Teacher

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QUESTION 1

What are the dimensions of the matrix?

$$\begin{bmatrix} 7 & 1 & -6 \\ -11 & 3 & 12 \\ 0 & -7 & 2 \end{bmatrix}$$

Enter your answers in the spaces provided.

The dimensions are 3 ✓

×

3 ✓.

QUESTION 2

State the dimensions for the matrix.

$$\begin{bmatrix} -3 & 4 & 14 & -2 & 9 \\ 12 & -2 & 3 & -8 & 0 \\ -3 & -1 & 4 & -7 & 1 \end{bmatrix}$$

Enter your answers in the spaces provided.

The dimensions are 3 ✓

×

5 ✓.

QUESTION 4

Which term describes each matrix?

Drag and drop the term into the box below the corresponding matrix.

$\begin{bmatrix} 0 & 0 & 0 \\ 0 & 0 & 0 \end{bmatrix}$ zero matrix ✓	$\begin{bmatrix} 6 & -3 & -7 & -1 \end{bmatrix}$ row matrix ✓
$\begin{bmatrix} 1 \\ 0 \\ -8 \end{bmatrix}$ column matrix ✓	$\begin{bmatrix} 1 & 3 \\ 11 & 5 \end{bmatrix}$ square matrix ✓

QUESTION 5

Identify the elements in the locations of the matrix.

$$\begin{bmatrix} 4 & 0 & -1 & 7 \\ 3 & -2 & 2 & 5 \\ 1 & 9 & -4 & -6 \\ 6 & -5 & 8 & -3 \end{bmatrix}$$

Select your answers from the drop-down menus.

$a_{24} =$

5 ✓

$a_{31} =$

1 ✓

$a_{14} =$

7 ✓

QUESTION 7

What is the position of 7 in the matrix?

$$\begin{bmatrix} 4 & 7 & 2 \\ -2 & 9 & -2 \\ -7 & 6 & 1 \\ 2 & 0 & 9 \\ 11 & 0 & 5 \end{bmatrix}$$

Select your answer from the drop-down menu.

a_{12} ✓

$= 7$

QUESTION 9

Identify the position of

-6

in the matrix.

$$\begin{bmatrix} 3 & -2 & 6 \\ 4 & -7 & -8 \\ 0 & -6 & -9 \\ -1 & 10 & 12 \end{bmatrix}$$

Select your answer from the drop-down menu.

a_{32} ✓

$= -6$

QUESTION 11

Which of the following matrices are square matrices?

☐ $\begin{bmatrix} 1 & 8 & 9 & 0 \\ 7 & -2 & 3 & -6 \\ -9 & 1 & 0 & 0 \end{bmatrix}$

☑ $\begin{bmatrix} -1 & -1 \\ 0 & 6 \end{bmatrix}$ ✓

☐ $\begin{bmatrix} -7 \\ 12 \end{bmatrix}$

- ☐ $\begin{bmatrix} 11 & 7 \\ 9 & -7 \\ 3 & -11 \end{bmatrix}$
- ☑ $\begin{bmatrix} 2 & 4 & 0 \\ -3 & 0 & 1 \\ 3 & 4 & -6 \end{bmatrix}$ ✓
- ☐ $\begin{bmatrix} -4 & 9 \end{bmatrix}$

QUESTION 13

Choose the correct answer.

Determine the dimensions of the matrix.

$$\begin{bmatrix} 5 \\ 1 \\ -12 \\ 3 \end{bmatrix}$$

- ◉ 4×1 ✓
- ○ 4×4
- ○ 1×1

1×4

QUESTION 15

Choose the correct answer.

What are the dimensions of the matrix?

$$\begin{bmatrix} 1 & -3 & -10 & 7 & 12 \\ -5 & 1 & 0 & 4 & 2 \\ 7 & -6 & 2 & -15 & 5 \\ 21 & 6 & 8 & 2 & 0 \end{bmatrix}$$

5×5

5×4

4×4

4×5 ✓

QUESTION 17

Choose the correct answer.

What is the value of element

a_{43}

in the matrix?

$$\begin{bmatrix} 1 & -2 & 1 & 9 & -10 \\ -3 & 2 & 7 & 1 & 5 \\ -2 & -7 & -4 & 2 & 9 \\ 2 & 0 & 3 & 0 & 8 \end{bmatrix}$$

- ○ $a_{43} = -4$
- ○ $a_{43} = 2$
- ○ $a_{43} = 8$
- ◉ $a_{43} = 3$ ✓

QUESTION 19

Choose the correct answer.

What statement describes the location of 1 in the matrix?

$$\begin{bmatrix} 5 & -1 & 2 \\ 11 & 2 & 5 \\ -6 & 4 & 3 \\ 2 & 1 & 0 \end{bmatrix}$$

- $a_{32} = 1$
- $a_{43} = 1$
- $a_{24} = 1$
- $a_{42} = 1$ ✓

QUESTION 21

Choose the correct answer.

Which statement best describes the matrix?

$$\begin{bmatrix} 0 & 0 & 0 & 0 \end{bmatrix}$$

- The matrix is a row matrix only.
- The matrix is a zero matrix only.
- The matrix is a row matrix and a zero matrix. ✓
- The matrix is a column matrix.

QUESTION 23

Choose the correct answer.

Which statement best describes the matrix?

$$\begin{bmatrix} 0 \\ 0 \\ 0 \\ 8 \\ 0 \end{bmatrix}$$

- ○ The matrix is a zero matrix only.
- ◉ The matrix is a column matrix only. ✓
- ○ The matrix is a column matrix and a zero matrix.
- ○ The matrix is a row matrix only.

QUESTION 25

Choose the matrices that are column matrices.

- ☐ $\begin{bmatrix} -7 & 8 & 13 & -2 \end{bmatrix}$
- ☐ $\begin{bmatrix} 4 & 8 & 5 \end{bmatrix}$

☐ $\begin{bmatrix} -9 & -4 \\ -5 & -8 \end{bmatrix}$

☑ $\begin{bmatrix} -2 \\ 1 \\ 9 \\ -6 \end{bmatrix}$ ✓

☐ $\begin{bmatrix} 8 & 1 \\ 5 & 0 \\ -6 & 1 \\ 0 & -3 \\ -7 & -5 \end{bmatrix}$

☑ $\begin{bmatrix} -4 \\ 4 \end{bmatrix}$ ✓

QUESTION 27

What are the dimensions of the matrix?

$$\begin{bmatrix} 2 & 1 \\ -5 & 0 \\ 13 & 6 \\ -3 & -6 \\ 1 & 7 \end{bmatrix}$$

Enter your answers in the spaces provided.

The dimensions are 5 ✓ × 2 ✓.