



# Math Virtual Learning

# College Algebra

May 15, 2020



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## Lesson: May 15, 2020

**Objective/Learning Target:**  
Students will multiply matrices.



## Warm Up Activity:

Work through these matrix basics problems.

[Matrix Basics](#)

## Lesson:

Watch part of this video on how to multiply matrices (it will start in the right spot). We encourage you to have your own sheet of paper out and work along with the video.

Matrix Multiplication:

$A$   $AB$   $B$   
 $m \times n$   $n \times p$   
order of product

$A$   $B$   
 $1 \times 2$   $2 \times 3$   
 $AB \rightarrow \text{yes } 1 \times 3$   
 $BA \cdot$



## Practice:

Practice matrix multiplication at the link.

[Matrix Multiplication](#)

**Additional Practice:** Multiply the Matrices or write “undefined” for those that are undefined

1) 
$$\begin{bmatrix} -6 & -3y \\ -6x & -2 \end{bmatrix} \cdot \begin{bmatrix} -2x & 0 \\ 4y & -3 \end{bmatrix}$$

2) 
$$\begin{bmatrix} -4 \\ 2 \\ 1 \end{bmatrix} \cdot [2 \quad -2]$$

3) 
$$\begin{bmatrix} 4 & 3 & 2 \\ 6 & 4 & 5 \end{bmatrix} \cdot \begin{bmatrix} 4 & 3 & -4 \\ 2 & -1 & 10 \end{bmatrix}$$

4) 
$$[2 \quad -2b] \cdot \begin{bmatrix} -2a & -b \\ 2 & 3 \end{bmatrix}$$

## Additional Practice Answers:

$$1) \begin{bmatrix} 12x - 12y^2 & 9y \\ 12x^2 - 8y & 6 \end{bmatrix}$$

$$2) \begin{bmatrix} -8 & 8 \\ 4 & -4 \\ 2 & -2 \end{bmatrix}$$

3) Undefined

$$4) [-4a - 4b \quad -8b]$$