Geometry

9.2 Use Properties of Matrices

# Matrix

columns

rows

Rectangular

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ arrangement of numbers in \_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_

element

Each number is an \_\_\_\_\_\_\_\_\_\_\_

row

\_\_\_\_\_\_\_\_

Dimension \_\_\_\_\_\_\_ x \_\_\_\_\_\_\_\_\_\_

3

2

columns

rows

column

\_\_\_\_\_\_\_\_

\_\_\_\_ x \_\_\_\_

Write a matrix to represent ΔABC with vertices A(3, 5), B(6, 7), C(7, 3).

x-coordinates go in first row; y-coordinates go in second row

How many rows and columns are in a matrix for a hexagon?

2 rows, 6 columns

## Add and Subtract Matrices

equal

Dimension must be \_\_\_\_\_\_\_\_\_\_\_\_

elements

Add corresponding \_\_\_\_\_\_\_\_\_\_\_\_

The matrix represents quadrilateral JKLM. Write the translation matrix and the image matrix that represents the translation of JKLM 4 units right and 2 units down. Then find the coordinates of the image.

Translation matrix

Image coordinates

## Matrix Multiplication

same

first

columns

Matrix multiplication can only happen if the number of \_\_\_\_\_\_\_\_\_\_\_\_\_\_ of the \_\_\_\_\_\_\_ matrix is the \_\_\_\_\_\_\_ as the number of \_\_\_\_\_\_\_\_ on the \_\_\_\_\_\_\_\_\_\_ matrix.

second

rows

You can multiply a 3x5 with a 5x2.

3x2

3x**5** ⋅ **5**x2 🡪 \_\_\_\_\_\_\_\_will be the dimensions of the answer

**Because of this order does matter!**

Assignment: 584 #2-32 even, 33, 38-44 even = 21

Extra Credit: 587 #2, 6 = +2