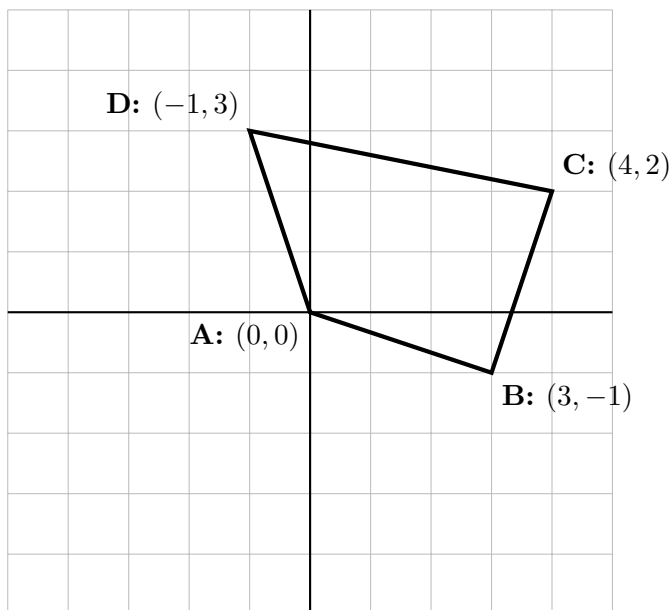


In this assignment, you'll transform the polygon below by applying the matrix to each one of its vertices.

Find each of the matrix/vector products below, then plot the point on the blank graph. "Connect the dots" to see the transformed shape.



The matrix of transformation:

$$\begin{bmatrix} -1 & 0 \\ 0 & -1 \end{bmatrix}$$

Find each of the matrix/vector products below to get the new, transformed vertices of the shape:

$$\text{New A: } \begin{bmatrix} -1 & 0 \\ 0 & -1 \end{bmatrix} \begin{bmatrix} 0 \\ 0 \end{bmatrix} =$$

$$\text{New B: } \begin{bmatrix} -1 & 0 \\ 0 & -1 \end{bmatrix} \begin{bmatrix} 3 \\ -1 \end{bmatrix} =$$

$$\text{New C: } \begin{bmatrix} -1 & 0 \\ 0 & -1 \end{bmatrix} \begin{bmatrix} 4 \\ 2 \end{bmatrix} =$$

$$\text{New D: } \begin{bmatrix} -1 & 0 \\ 0 & -1 \end{bmatrix} \begin{bmatrix} -1 \\ 3 \end{bmatrix} =$$

Now “connect the dots” to see the new shape. Plot each of the new points you found, and connect the New A to New B, New B to New C, New C to New D, and New D to New A

