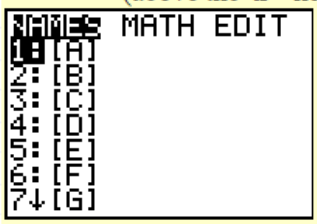
Using the Matrix Function on your graphing calculator:

$$A=\begin{bmatrix} 2 & -4 & 0 \\ 10 & 5 & -1 \end{bmatrix} \qquad B=\begin{bmatrix} 1 & 0 \\ -2 & 3 \\ 5 & 9 \end{bmatrix}$$

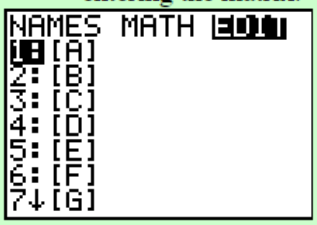
How to enter the Matrices into your calculator-

Step 1: Go to **Matrix** (above the x^{-1} key)



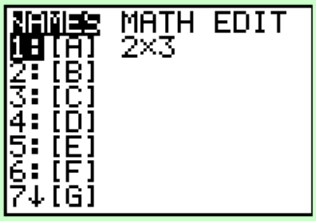
If dimensions appear next to the names of the matrices, such as 3x3, a matrix is already stored in the calculator. You may save it by moving to a new name, or overwrite it.

Step 2: Arrow to the right to **EDIT** to allow for entering the matrix.

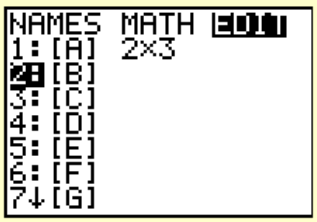


Step 3: Type in the dimensions (size) of your matrix and enter the elements (press **ENTER**).

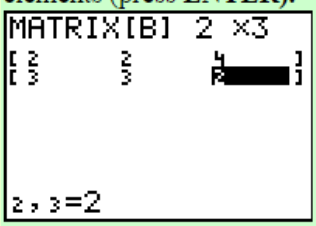
Step 4: Repeat this process for the second matrix



Step 5: Arrow to the right to **EDIT** and choose a new name.

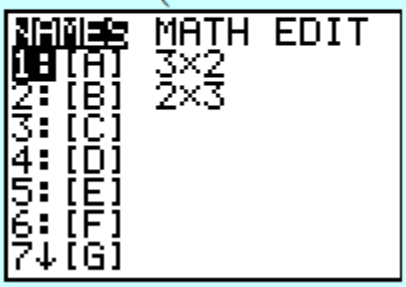


Step 6: Type in the dimensions (size) of your matrix and enter the elements (press **ENTER**).

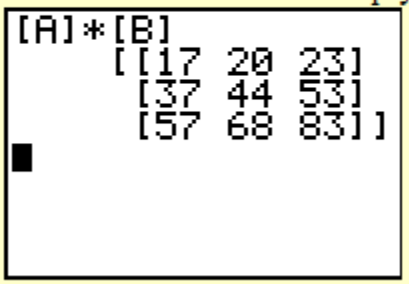


How to Multiply Matrices-

Step 1: Once the matrices are entered, you should see their dimensions in residence when you go to **Matrix** (above the x^{-1} key)



Step 2: Return to the home screen. Go to **Matrix** to get the names of the matrices for multiplying.



A*B=

B*A=

Now Matrix Multiplication should be a lot quicker to do. Put the following Matrices in your calculator and perform the operations, if possible.

$\mathbf{A} = \begin{bmatrix} 0 & 7 & 3 \\ -2 & 3 & 0 \end{bmatrix}$ $\mathbf{B} = \begin{bmatrix} 4 & 2 \\ 1 & -3 \end{bmatrix}$ $\mathbf{C} = \begin{bmatrix} -3 & 1 \\ 5 & -2 \\ 0 & 1 \end{bmatrix}$ $\mathbf{D} = \begin{bmatrix} 1 & 0 \\ 0 & 1 \end{bmatrix}$

1) AB=

2) BA=

3) AC=

4) CA=

5) A^2=

6) B^2=

7) C^2=

8) D^2=

9) B^{-1}=

10) C^{-1}=

11) $B^{-1}B$=

12) $C^{-1}C$=