

Matrices 89

Matrices are an important type of math object. Like real numbers, you can perform mathematical operations with matrices.

Suppose you wish to enter the 3 by 3 matrix,

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

into your calculator. You can type in:

$$[1, 0, 2 ; 5, 1, 2 ; - 3, 4, -6]$$

or you can enter the matrix in the data editor by going into **APPS** **6** .

Go into the data editor. The calculator prompts you for a name. Give this matrix the name **mat** . We want **mat** to be a 3 by 3 matrix so type in the threes. Your screen should look like this.



Type in the individual entries for the matrix.

2nd **ESC** returns you to the home screen.

Type the name **mat**, to see this matrix. Type in the following to get the product of the inverse of **mat** and **mat**. Namely, $\text{mat}^{-1} * \text{mat}$.

$$(\text{mat}^{-1}) * \text{mat}$$

(Look at the Back!)

Is the answer close to the matrix,

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

Done in L^AT_EX.