Chapter 9 / **Example 4**

Inverse of a matrix

Use technology to determine the inverse of $\boldsymbol{P} = \begin{pmatrix} 4 & -3 & -2 \\ 2 & 2 & 3 \\ 6 & 1 & -1 \end{pmatrix}$.

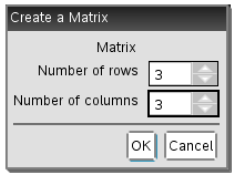
Verify that $\boldsymbol{PP}^{-1} = \boldsymbol{P}^{-1}\boldsymbol{P} = \boldsymbol{I}_3$.

Open a new document and add a Calculator page.

Press menu 7:Matrix & Vector | 1:Create | 1:Matrix.

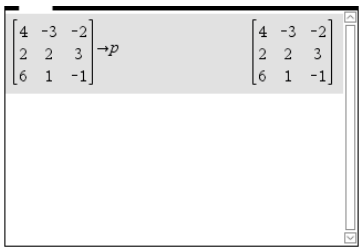
Change the number of rows and columns to 3.

Press enter.



Enter the values of the elements of the matrix $\boldsymbol{P}$, using tab to move through the matrix.

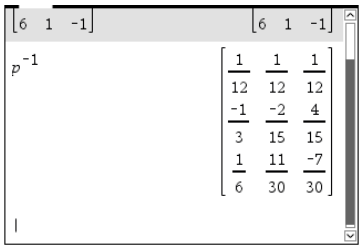
Press ctrl var sto→ P and press enter.



Type P, press ^ and type −1.

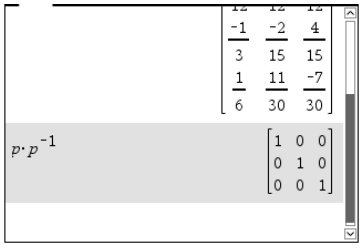
Press enter.

The GDC displays the matrix $\boldsymbol{P}^{-1}$.



Type P × P^{-1} and press enter.

$\boldsymbol{P} \cdot \boldsymbol{P}^{-1} = \boldsymbol{I}$.



Type P^{-1} × P and press enter.

$\boldsymbol{P}^{-1} \cdot \boldsymbol{P} = \boldsymbol{I}$.