

Start in Main.

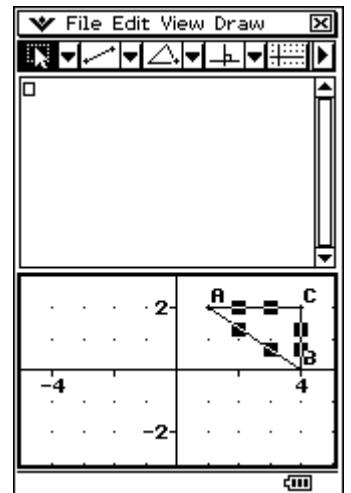
Transform the triangle  $A(2, 1) B(4, 0) C(4, 2)$  with the matrix  $\begin{bmatrix} -1 & 0 \\ 0 & 1 \end{bmatrix}$ .

Open a Geometry window from Main, add axes and integer grid.

Select the **line segment** tool and draw the three sides of the triangle.

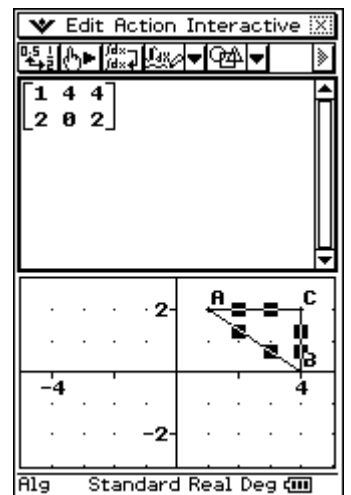
Tap on the **select** tool.

Select each of the three sides of the triangle.



Tap onto one of the selected sides and drag the shape into the cursor box in Main. Release the pointer.

The vertices are arranged in a matrix.

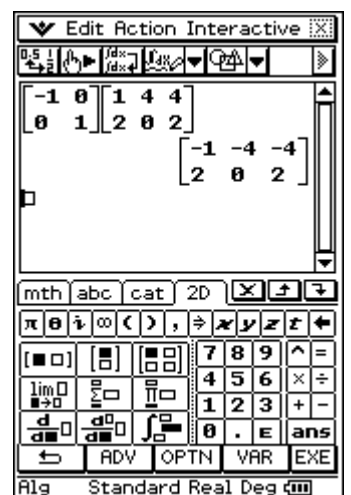


Open the keyboard.

Tap on the **2D** tab, **CALC** and insert a  $2 \times 2$  blank matrix in front of the vertices.

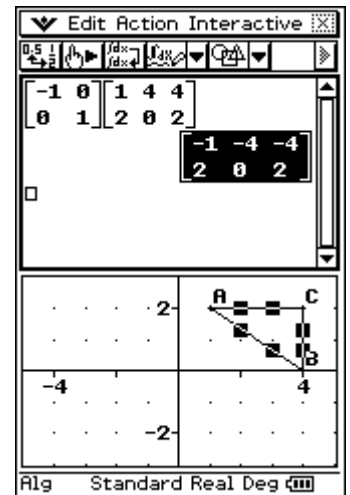
Enter the transformation matrix coefficients.

Tap **EXE**.



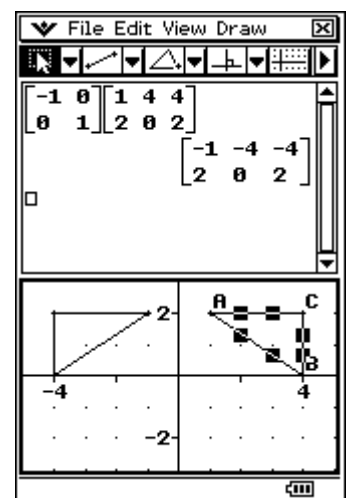
Close the keyboard.

Tap on the matrix result to select it.



Drag the selected matrix back into the middle of the Geometry window and release the pointer.

The image is drawn - in this case a reflection in the y-axis.



Note that in Geometry alone, matrix transformations can be applied to a selected object using the **Draw, Construct, General Transform** tool.

