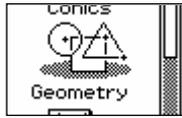


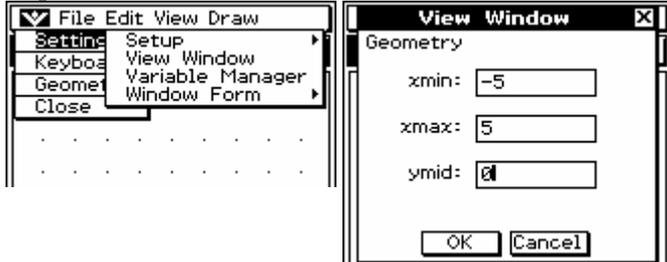
Algebra Art!

This resource was written by Derek Smith with the support of CASIO New Zealand. It may be freely distributed but remains the intellectual property of the author and CASIO.

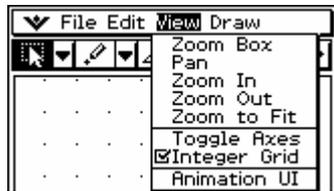
Enter into the Geometry icon from the MENU.



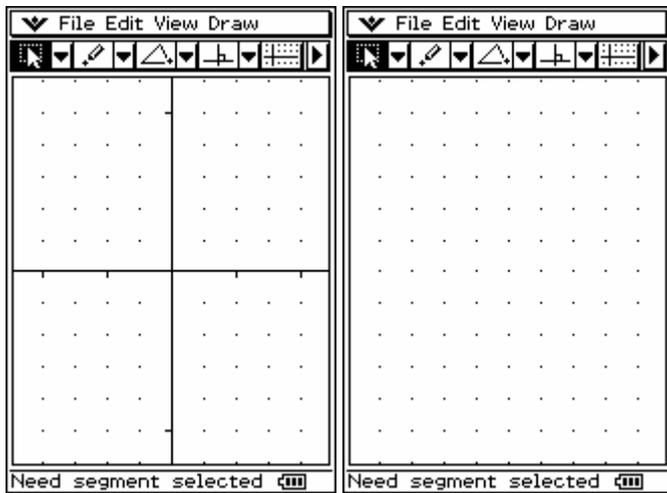
Set up the View Window to those shown in the screen snaps below.



Make sure that you have the Integer Grid on by tapping in the box so that a 'v' is entered in the box.



If you have the axes on, as illustrated below, then note where the origin (0,0) is and then turn the axes off.

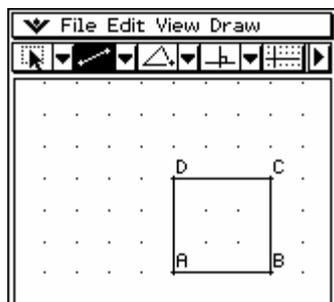


Select the line segment tool.

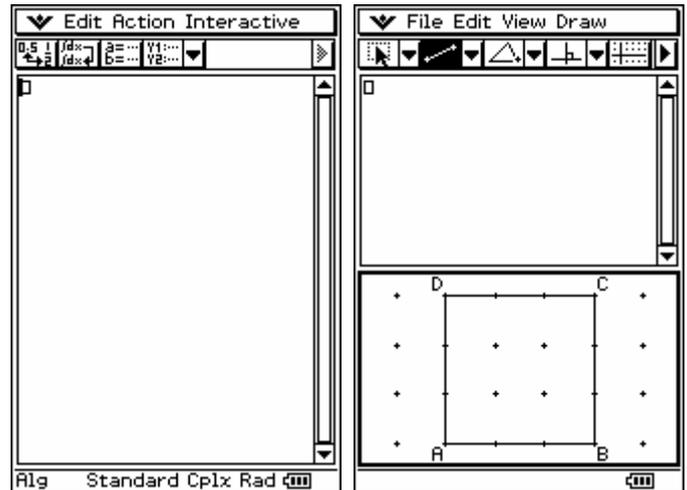


Create a square starting at (0,0) and then progressing to (3,0) → (3,3) → (0,3) returning to (0,0).

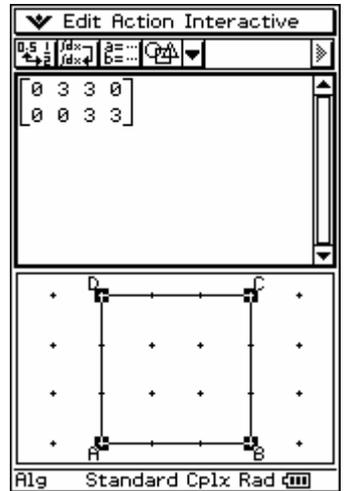
See the screen snap to the right illustrating the square □ABCD



Tap on **Menu** at the bottom of the screen and then split the screen by tapping on the arrow here and selecting the geometry Icon.



In the Geometry Window tap the stylus on each of the points labelled A, B, C, D and then keeping the stylus on the geometry screen drag it to the left side of the working box in the Main window. [Note: You will see a rectangle form as you drag these 'points' up.] Then take the stylus off the screen. A matrix illustrating these four points will appear. See the screen snap on the right.



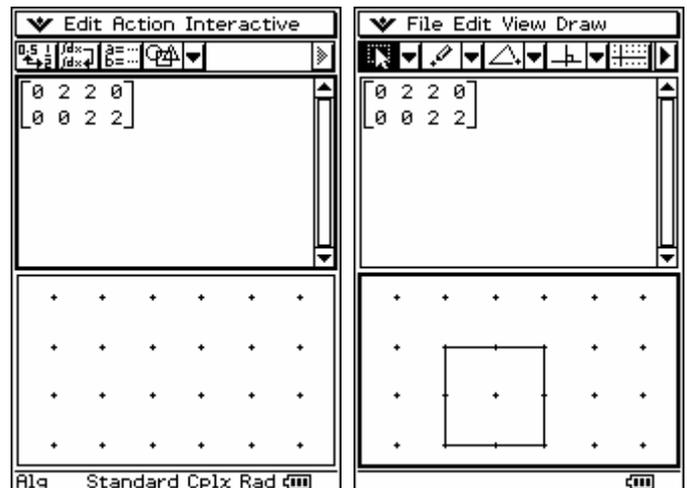
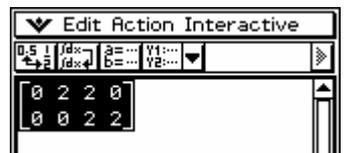
Clear the screen in the Geometry window by selecting 'Edit' and then 'Clear All'

Now change the matrix

$$\begin{bmatrix} 0 & 3 & 3 & 0 \\ 0 & 0 & 3 & 3 \end{bmatrix} \text{ to } \begin{bmatrix} 0 & 2 & 2 & 0 \\ 0 & 2 & 2 & 0 \end{bmatrix} \text{ by editing this in the}$$

Main window. See the screen snaps below.

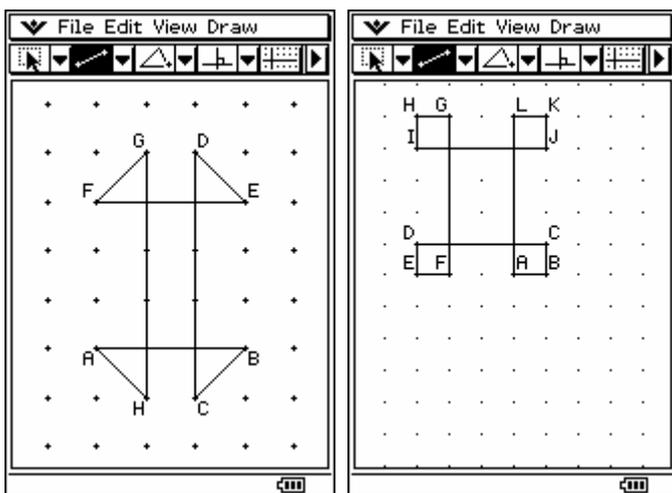
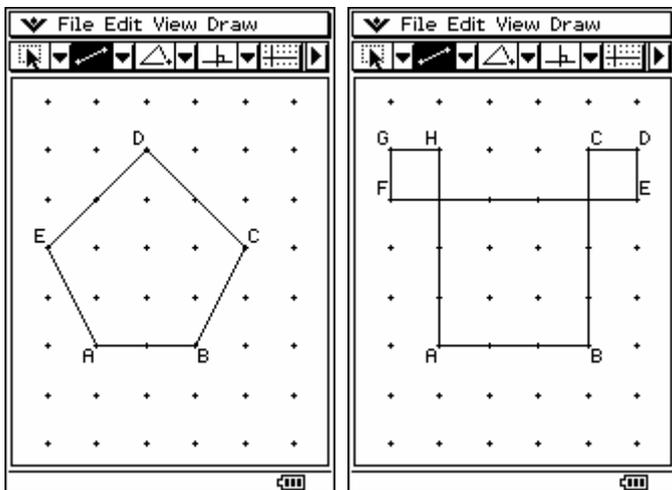
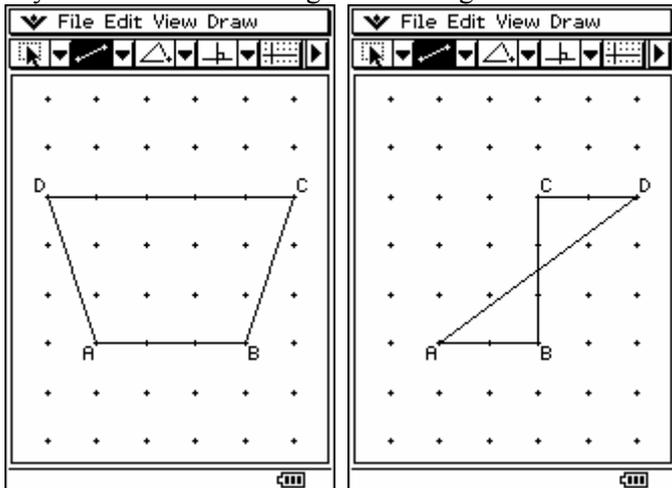
Now, drag over the matrix to highlight it and then drag it into the Geometry window.



[Remember to: Clear the screen after each drawing and matrix.]

Practice A:

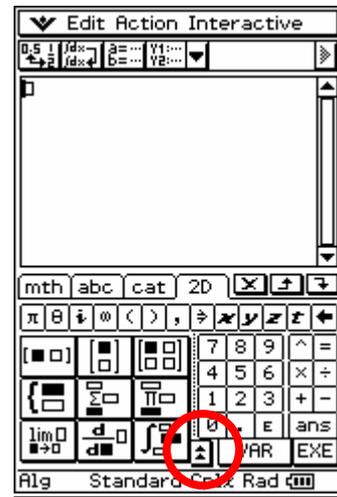
Try to create the following and viewing their matrix.



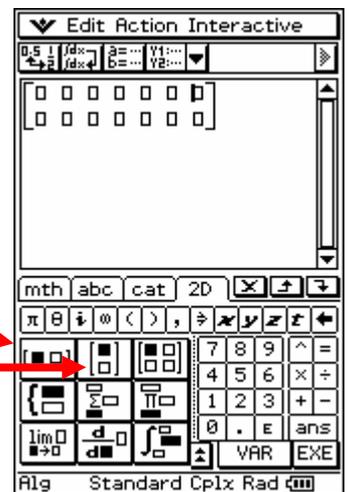
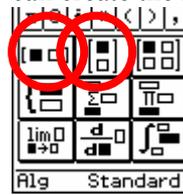
Practice B:

Creating a matrix in the 'Main' Icon.

Bring up the **Keyboard** and select '2D' tap on the double arrow at the bottom to bring up the keyboard screen illustrated in the next screen snap.



To select a matrix, these are a combination of these two tools. Have a practice with these two tools to see how you can create the required matrices.



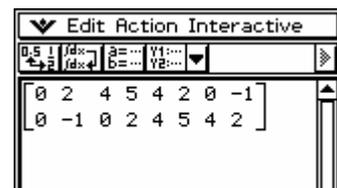
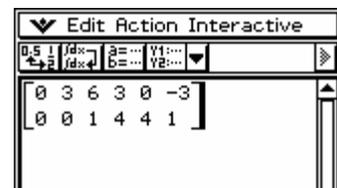
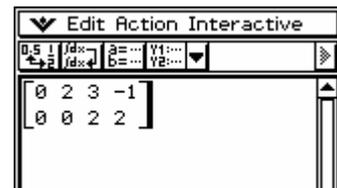
In the example shown

6 × of

1 × of



Try to create the following matrices and viewing their picture.



Have fun!

For further tips, more helpful information and software support visit our website

www.monacocorp.co.nz/casio