

<b>Classpad Help Series sponsored by Casio Education Australia</b>		<b>www.casioed.net.au</b>	
<b>180</b>	<b>Vector Basics</b>	Author	Charlie Watson
		Date	31 January 2010
		CPM OS	<b>03.04.4000</b>

Start in Main.

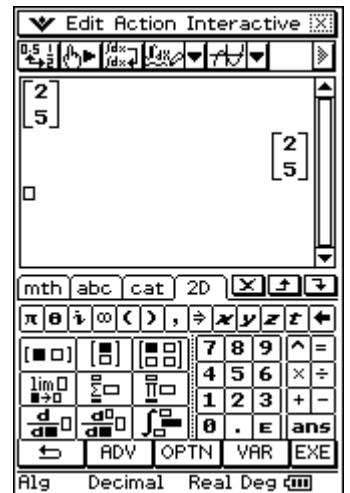
Note the settings at the bottom of the screen.

We will represent a vector  $x\mathbf{i} + y\mathbf{j}$  in the form  $\begin{bmatrix} x \\ y \end{bmatrix}$  with Classpad.

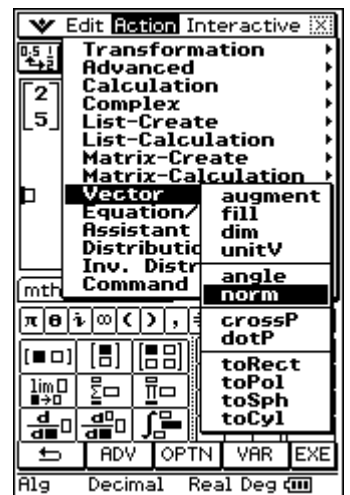
Open the keyboard and tap on the **2D** tab and then **CALC**.

Tap  $\begin{bmatrix} \square \\ \square \end{bmatrix}$  once for a 2-D vector (twice for 3-D).

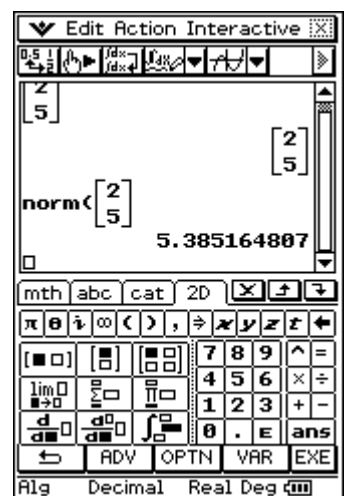
Enter required components and tap **EXE**.



To determine the magnitude of the vector, tap **Action, Vector, norm**.

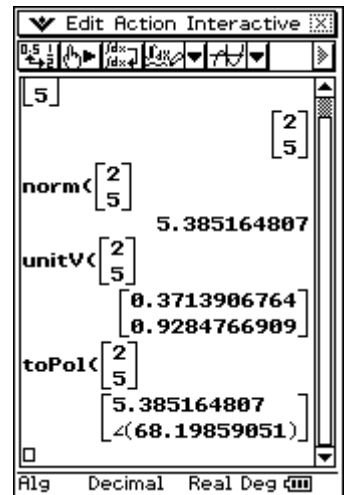


Enter the vector and tap **EXE**.

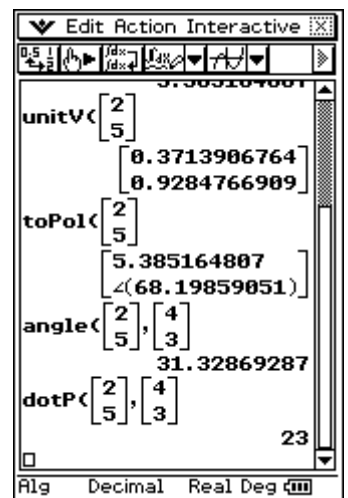


Determine a unit vector or convert into polar form in a similar way.

Note that the use of **toPol** returns both the magnitude and direction of the vector.



To determine the angle between two vectors or their dot-product, enter a comma between them.



To determine the Cartesian form of a vector given its magnitude and angle with the  $x$ -axis (eg 10 units at  $30^\circ$ ) use **toRect**.

The angle must be preceded by  $\angle$ , found in the **mtb** tab, **OPTN** menu and surrounded by brackets.

