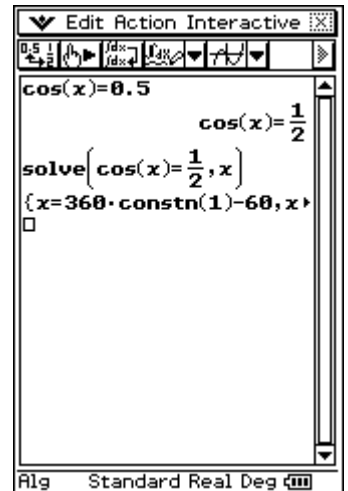


<b>Classpad Help Series sponsored by Casio Education Australia</b>		<b>www.casioed.net.au</b>	
240	Restrict Range Of Solutions With Trig Equations	Author	Charlie Watson
		Date	31 January 2010
		CPM OS	03.04.4000

When solving trigonometric equations using Solve in Main, Classpad tends to return a general solution, as shown at right.

The equation to solve is  $\cos(x) = 0.5$ .

There are a couple of methods to return all solutions within a given range, such as  $0^\circ \leq x \leq 360^\circ$ .

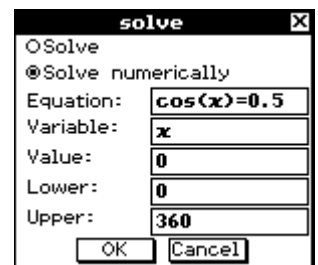


**Method 1 – solve numerically.**

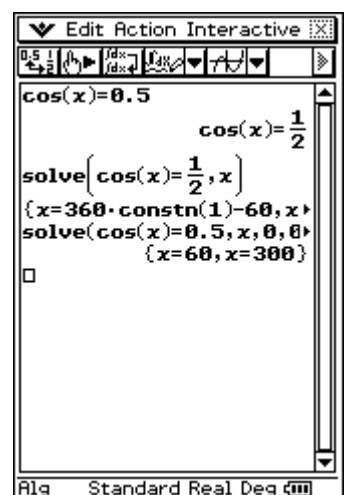
Use **Interactive, solve** and choose the **Solve numerically** option.

Set the **Lower** and **Upper** as required and tap **OK**.

A warning appears. Tap **OK**.



Two solutions are returned within the specified range.



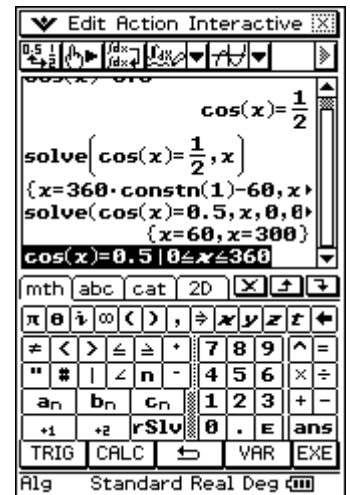
**Method 2 – add a restriction on  $x$  to the equation.**

Enter the equation  $\cos(x) = 0.5$ .

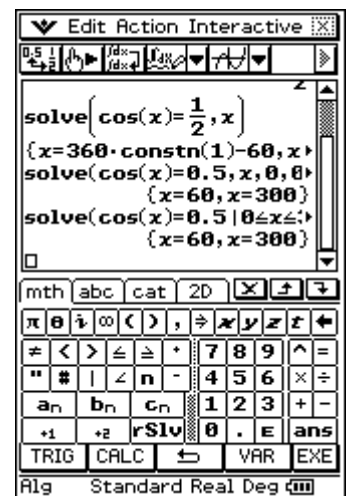
Open the keyboard, tap on the **mth** tab, tap **OPTN** and add the range restriction.

Highlight the expression.

Tap **Interactive**, solve and **OK**.



Two solutions are returned within the specified range.



Note that the restriction can also be added outside the solve command.

