

<b>Classpad Help Series sponsored by Casio Education Australia</b>		<b>www.casioed.net.au</b>	
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		CPM OS	03.04.4000

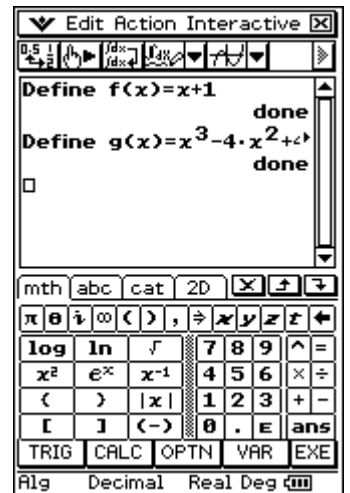
Start in eActivity.

This eActivity contains a Main strip which can easily be re-used to solve most trapped area problems.

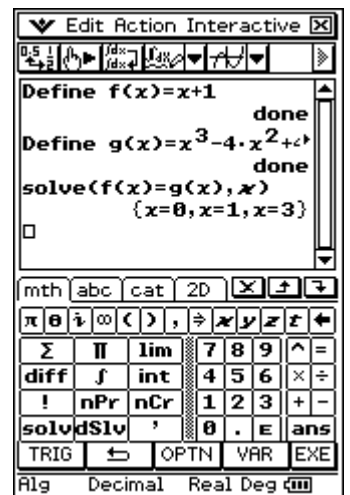
Example: Find area trapped between  $y = x + 1$  and  $y = x^3 - 4x^2 + 4x + 1$ .

Tap **Insert, Strip, Main** and then **Resize**.

Define the first function as  $f(x)$  and the second as  $g(x)$ .

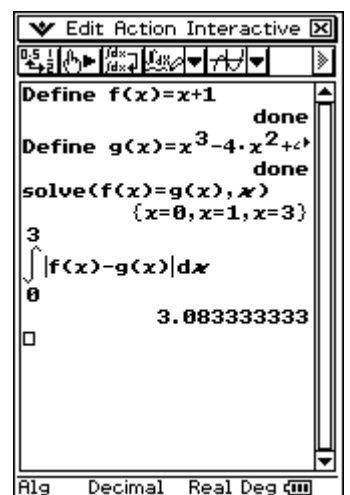


Next solve  $f(x) = g(x)$  to find the point(s) of intersection of the two functions.

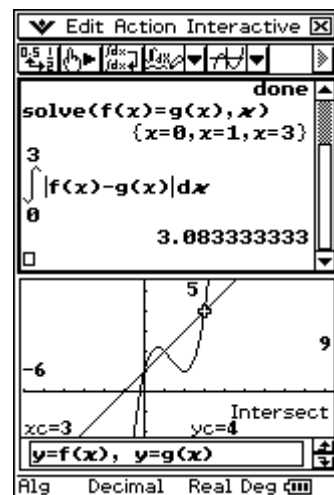


Lastly find  $\int_{\text{lower}}^{\text{upper}} |f(x) - g(x)| dx$ .

Using the absolute value function avoids having to split up the integral and also to determine whether  $f-g$  or  $g-f$  is required.



Opening a graph window and drawing  $f(x)$  and  $g(x)$  allows a visual check that the answer is sensible.



Close the strip, enter a suitable title for it and save the eActivity.



To use the strip for another problem, firstly modify  $f(x)$  and tap **EXE**.

Next, modify  $g(x)$  and tap **EXE**.

Each time, the display is updated.

Modify the upper and lower bounds of the integral using the values from the solve result and tap **EXE**.

