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046 Piecewise Defined Functions		Author	Charlie Watson
	Piecewise Defined Functions	Date	31 January 2010
		CPM OS	03.04.4000

Note that the technique shown here is only possible using OS v3.04 and later.

Navigate in Main to the **2D** tab.

Tap twice on the icon to create three empty rows.

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Enter the function as shown.

$$f(x) = \begin{cases} 3 - x^2 & -1 \le x < 2\\ x - 3 & x \ge 2\\ 2 & Elsewhere \end{cases}$$

We could have started by using Define f(x).

A couple of values show the results are as expected.

Note that we leave the third condition box empty to allow for 'elsewhere'.

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To graph the function simply open a graph window and drag f(x) in.



An alternative in the graph and table application is to enter $Y_1 = f(x)$.



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Piecewise functions can be traced along, integrated and so on, either in Main or Graph. This is very useful for some probability functions.