

<b>To work with a differential equation</b>	Choose <i>2-dim</i> from the Window menu.
<b>To define a differential equation or a system of equations</b>	Under the <i>Equa</i> window, choose <i>DEq</i> , then <i>dy/dt</i> . For a 1st order DE, write the equation as $dy/dx$ using $x$ as the independent variable and $y$ as the dependent variable. Then set $x'=1$ and $y'=f(x,y)$ . For a system of two DEs, write the equations as $dx/dt$ and $dy/dt$ using $t$ as the independent variable and $x$ and $y$ as the dependent variables. Then set $x'=f(t,x,y)$ and $y'=g(t,x,y)$ . If $t$ appears in the equations, then click the <i>time-dependent</i> box. (optional) Choose <i>slopes</i> for 1st order or autonomous system.
<b>To set the window view</b>	The default viewing window is $[-5,5] \times [-4.5,4.5]$ (this gives the same scale along both axes.) To change the window, choose <i>View</i> in the <i>View</i> menu. Select <i>set corners</i> and enter the values of the horizontal and vertical extremes. If you are going to plot an initial value solution, make sure that left and down are less than the initial $x$ value and initial $y$ value so that the initial point is not on the boundary of the window. When done, click on the apply button, then close the window.
<b>Improving the accuracy of graphs</b>	When you define the differential equation, increase the plotting density. You can also do this afterward by choosing <i>edit</i> in the inventory window. This will slow down the speed at which the graphs are drawn, but with today's fast computers you will not notice much.
<b>To draw the solution of an initial value problem from a dialog box</b>	Click on the <i>One</i> menu and choose <i>dy/dt trajectory...</i> to open the <i>ivps</i> window. Set the initial $x$ and $y$ values, and the initial $t$ value if necessary for a system of equations. For the direction, choose either <i>fwd</i> or <i>both</i> . Click on <i>Draw</i> . Repeat for other initial $x,y, t$ values as needed.
<b>To draw different solutions quickly</b>	Be sure the <i>ivps</i> window is open. Click the left mouse button in the plot window to draw the solution with the location of click as the initial value.
<b>To overlay the graph of a function or an implicit curve</b>	From the <i>Equa</i> menu, pick either <i>Explicit</i> to graph a function or <i>Implicit</i> to draw a curve satisfying an equation $0=f(x,y)$ . You can also specify the color of the curve and its thickness ( <i>pen width</i> ). Note: If you draw an implicitly defined curve for which you know one of the axes is part of the curve, first uncheck <i>axes</i> in the view window. After you draw the curve you can turn the axes back on.
<b>To edit a differential equation</b>	Open the <i>inventory</i> window if necessary from the <i>Equa</i> menu. Click on the DE and choose <i>edit</i>

<b>To delete solution curves</b>	In the <i>ivps</i> window, click on the initial value for the curve you want to delete, then click on <i>delete</i> . To delete all solution curves, click on <i>del all</i>
<b>To do a new example</b>	Close the graph window and start over. You can also delete equations from the inventory window (choose <i>delete</i> ).
<b>To print or copy a graph</b>	<p>Choose <i>Print</i> from the <i>File</i> menu. Before printing, however, you should consider the other two menu items underneath the Print command. For help on printing, select <i>Help</i> from the <i>File</i> menu.</p> <p>You can also copy the graph to the clipboard (use <i>Copy to clipboard</i> for the best image) and then paste it into a Word document. This would allow you to combine the graph with text. In Word, choose <i>Paste Special</i>, click on <i>Picture (Enhanced Metafile)</i>. This may paste the graph on top of your text, so with the picture still selected, choose <i>Picture...</i> from the <i>Format</i> menu, click on the <i>Position</i> tab, and <b>uncheck</b> <i>Float over text</i>. This should then move the graph to where your cursor is.</p> <p>If you have problems using <i>Copy to clipboard</i>, then try <i>Bitmap to clipboard</i> instead. Under <i>Paste Special</i> in Word, choose <i>Device Independent Bitmap</i> and uncheck <i>Float over text</i>.</p>
<b>Other Misc items</b>	<p>Under the <i>Tolerances</i> section of the <i>Misc</i> menu:</p> <p><i>Abrupt angles</i></p> <p>When checked, graphs will stop if the program detects an abrupt change in direction. If using the Heaviside function, you should turn this option off.</p>