

Plotting Equations onto a Polar Graph

FILE: Polar3.cln

Introduction

This example demonstrates how the Polar Graph can accept equations fed into it and plot the results. A string object can be used instead, this is easier to enter into a input object.

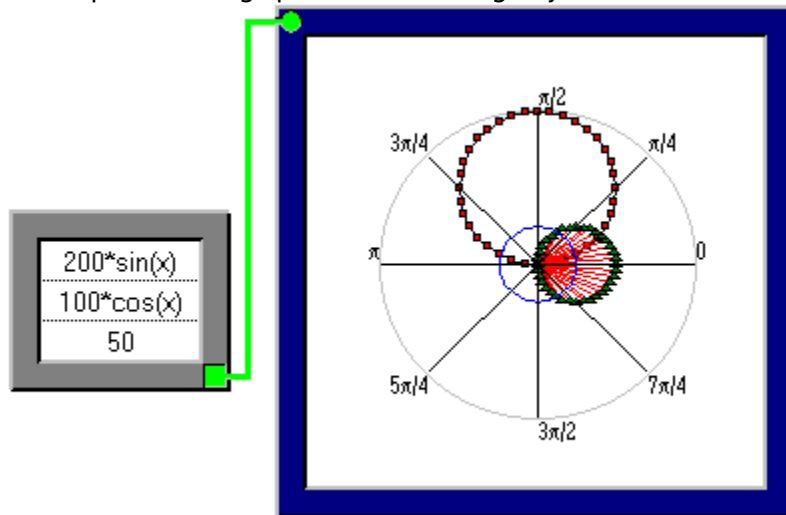
The Equation

The equations you put into the graph must be functions of x . For example " $100*\sin(x)$ " entered as a string object will plot the radii produced by sweeping the angle x , through 0 to 2π radians.

You must select either radians or degrees on the Polar Graph to match the units of the equation. If radians are set, then x is varied from 0 to 2π , if degrees are set then x is varied from 0 to 360 degrees.

The Example

Here the Full Inlet is used to input 3 equations. The equations are entered as strings into an Input Table. To enter a string requires only that you put double quotes around it. For example "A string" produces a string object.



Click on any part you need help on.

This is the Polar Output Graph. It is set to display the angle in Radians, hence the equations are evaluated for $x = 0$ to 2π Radians.

This is an Input Table object, which inputs a two dimensional array into the sheet. The equations are entered into this table as the string "200*sin(x)" 100*cos(x) and "50". The last equation always evaluates to 50, hence it is the blue circle at radius 50.

