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Sheba SoftPurr
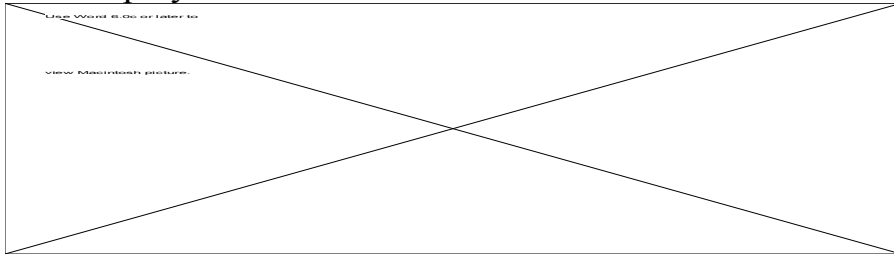
Presents

Function Master 1.1
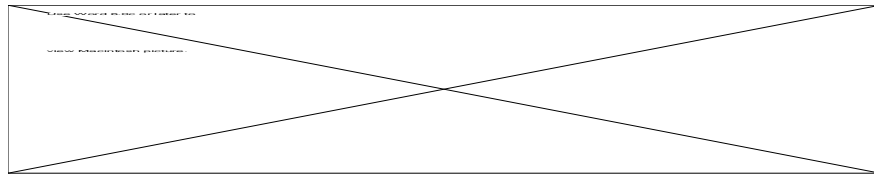## Visualization and Modification of Functions

Introduction

Function Master 1.1 is an application that takes one of eight available functions and plots it. The function coefficients can be modified interactively to enable the user to view the effects of each coefficient on the overall plot.
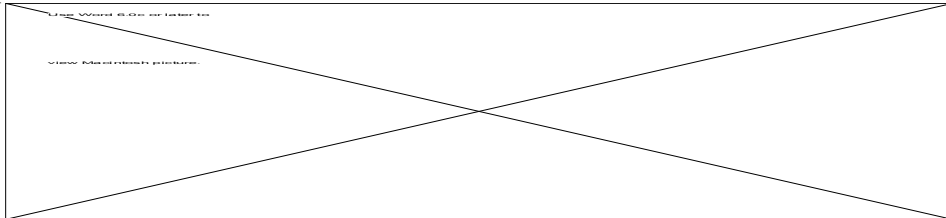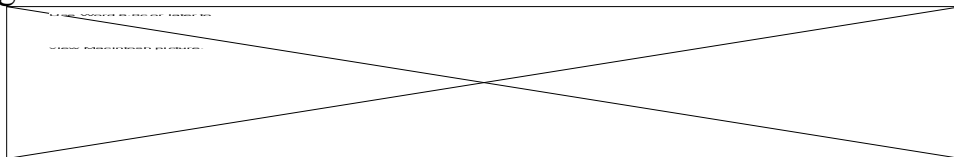
The functions

- Fourth-order polynomial

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- Third-order fraction

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- Exponential

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- Log base 10

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- Log base e

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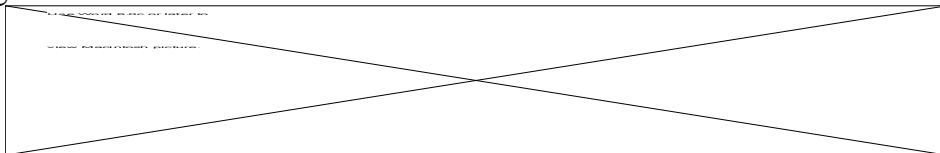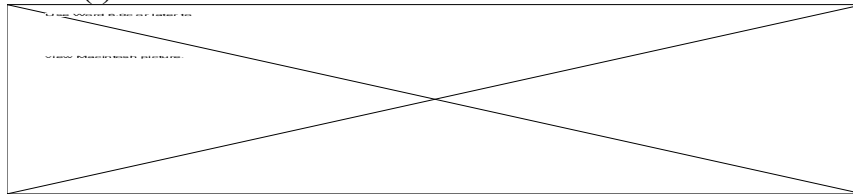
- Sin( ) + cos( )

- Tangent( ) or Cotangent( )
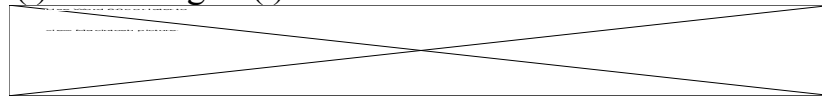
- Sin( ) * Cos( )
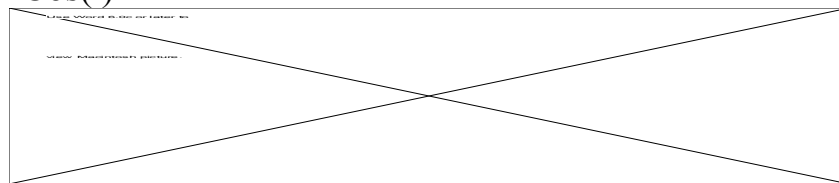
All the coefficients (in red) could be modified in a dialog box from the **Function** menu, or interactively changed (incremented/ decremented) in the Equation window.
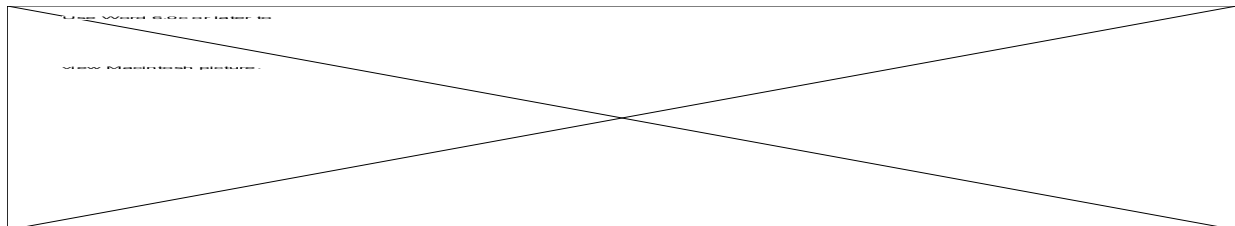

A coefficient can be incremented by clicking on the upper region of its box displaying the "+"s and the red triangles. Decrementing is accomplished by clicking on the bottom part.

Interface

After a function is selected and the desired coefficients are set, the settings could be saved as an input file using **Save as Input...** from the File menu. The same file could be loaded later by selecting **Load Input...** from the File menu.

The user has the option of copying or printing the current plot and its equation. Copying option is triggered from the **Output menu** . The user then can select a rectangle to copy to the clipboard by pressing the mouse button and dragging it to form a rectangular region. The picture could be then pasted in another application. The printing option from the File menu will take the current equation and its graph and send it to the printer. The output will look like:

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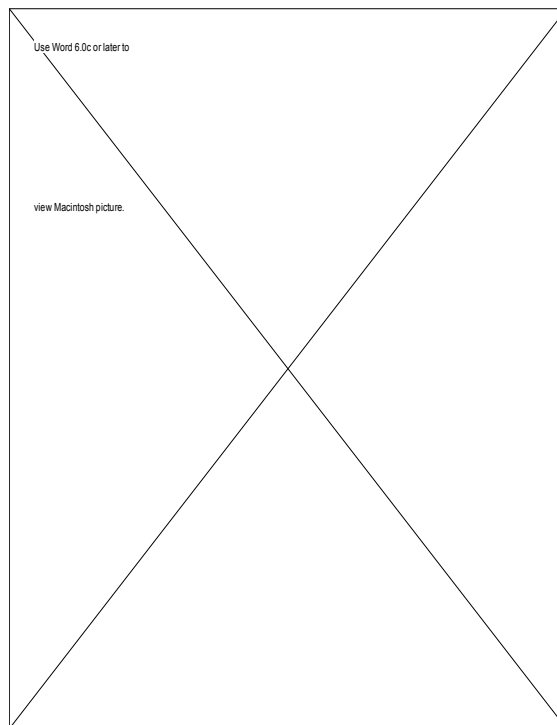
If a graphical representation of the function is not enough, a numerical output could be obtained and sent to the console window or to a file. A sample portion of the output is shown below:

F(x) = 1.00/x^4 + 1.00/x^3 + 1.00/x^2 + 1.00/x + 1.00
       + 1.00*x + 1.00*x^2 + 1.00*x^3 + 1.00*x^4

X	F(X)
8.700	6472.999
8.800	6765.794
8.900	7068.430
9.000	7381.125
9.100	7704.101
9.200	8037.580
9.300	8381.788
9.400	8736.953
9.500	9103.305
9.600	9481.078
9.700	9870.506
9.800	10271.827
9.900	10685.281
10.00	11111.111

Menu Description

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