## Graphing with Piecewise Functions

Make a picture using the piecewise functions we discussed in class. At the very least, you must include the curves mentioned here. Additional curves are fine too. Though not required, I would be extra impressed if you included rational functions.

## As Piecewise Functions

(a) At least one line or line segment
(b) At least two parabolic segments one of which has its vertex not at the origin.
(c) At least one function that is a shifted transformation of a previous function.

(d) At least one exponential function segment.
(e) At least one logarithm function segment.
(f) At least one polynomial with degree greater than 2.

To receive extra credit (maximum 5 test points), your picture must attempt to represent something recognizable by your instructor or his minions. If a description will help clarify the picture you may want to include that. A random combination of curves that makes a nice design but is not related to some animate object will not receive full extra credit.

I suggest you use the free program, WinPlot, to draw/print your picture. You can print directly from WinPlot and neatly hand-write your equations or print twice, once with equations showing. Other options: Copy and paste into a Word Processor and type in your equations. Take a screen shot showing Picture \& Inventory. Be sure to designate the curves which satisfy (a) - (f) if it is not obvious.

