

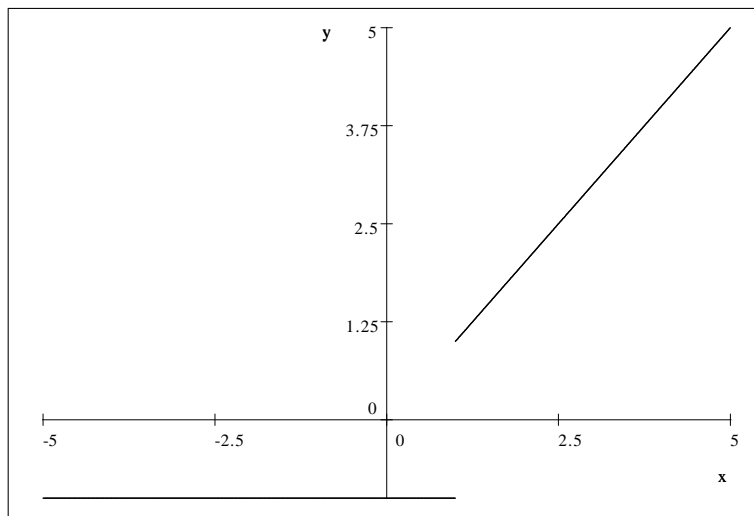
1 Lesson 10: More on graphs, citations

A conditional or piecewise-defined function is one that requires more than one equation to describe its behavior. For example,

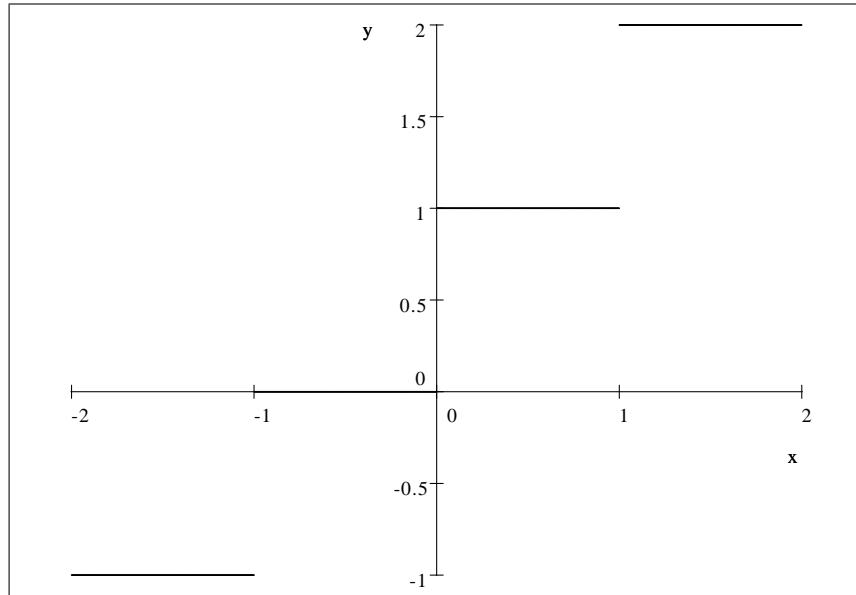
$$f(x) = \begin{cases} x & \text{if } x \geq 1 \\ -1 & \text{if } x < 1 \end{cases}$$

is a conditional function. These are easy to graph [3]

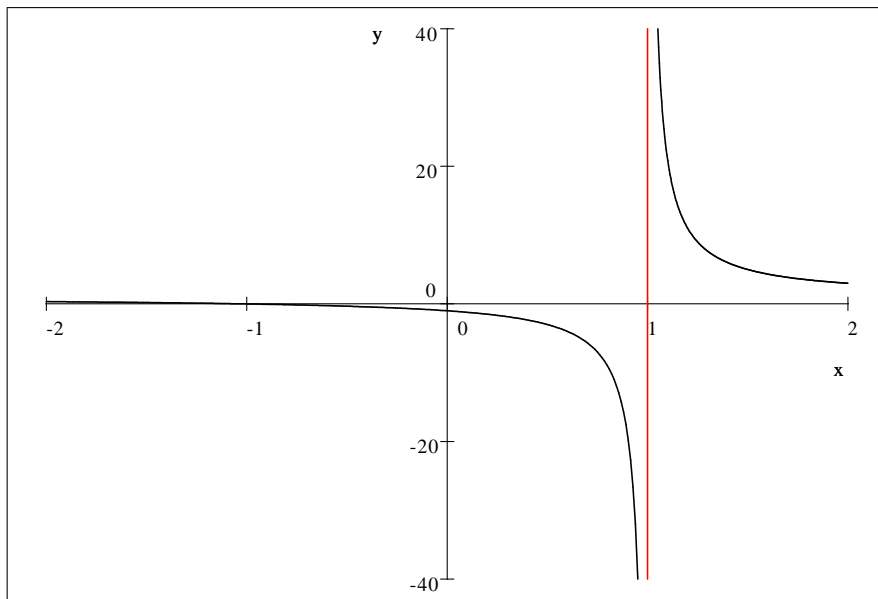
$$f(2) = 2$$



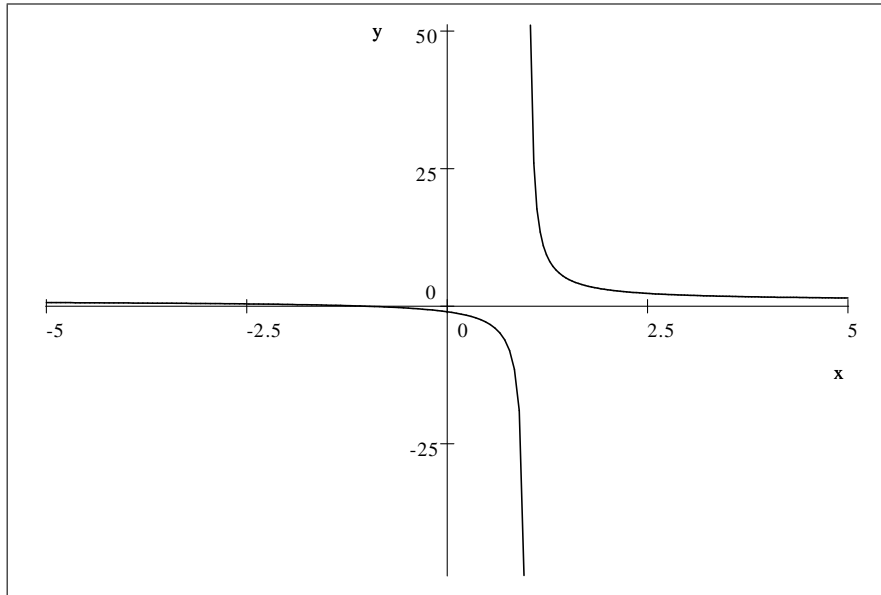
[x]



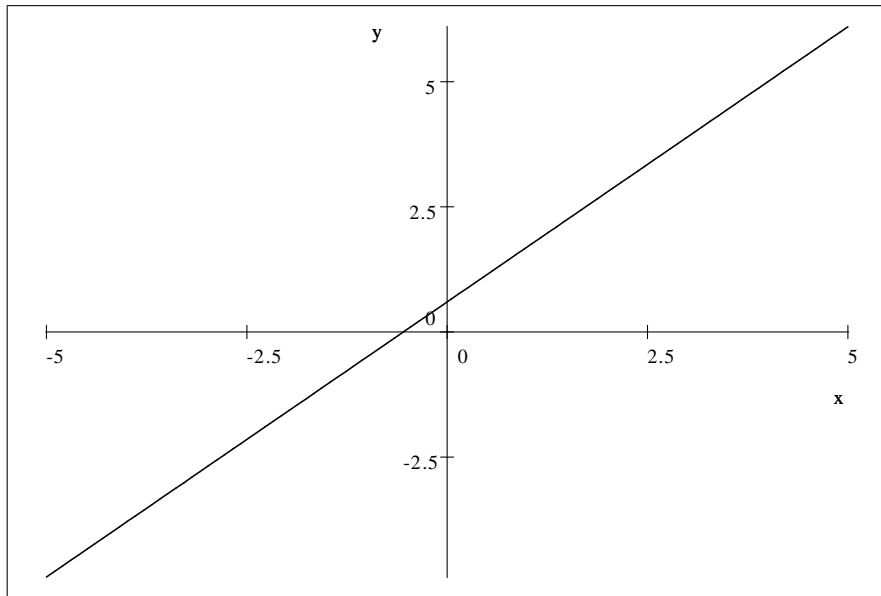
$$\frac{x+1}{x-1} [2]$$



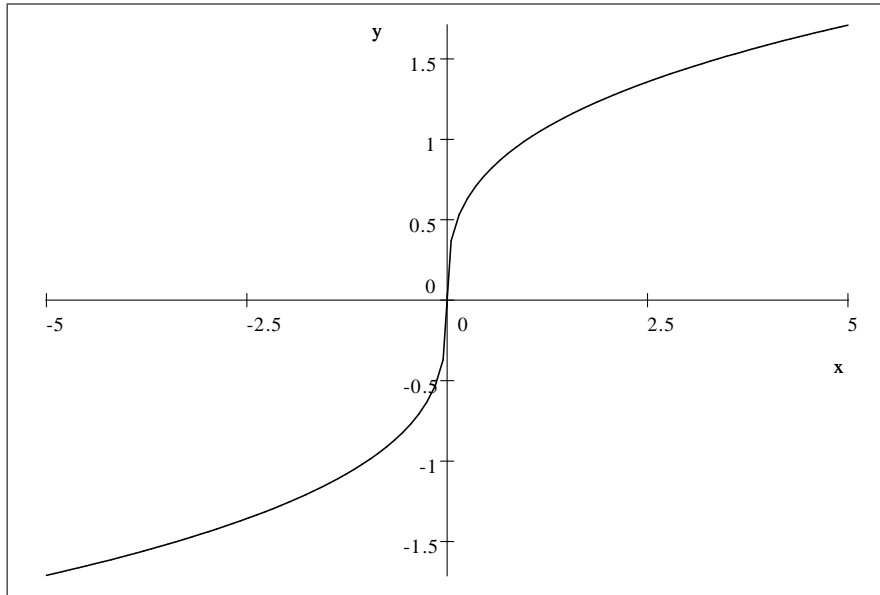
$$g(x)$$



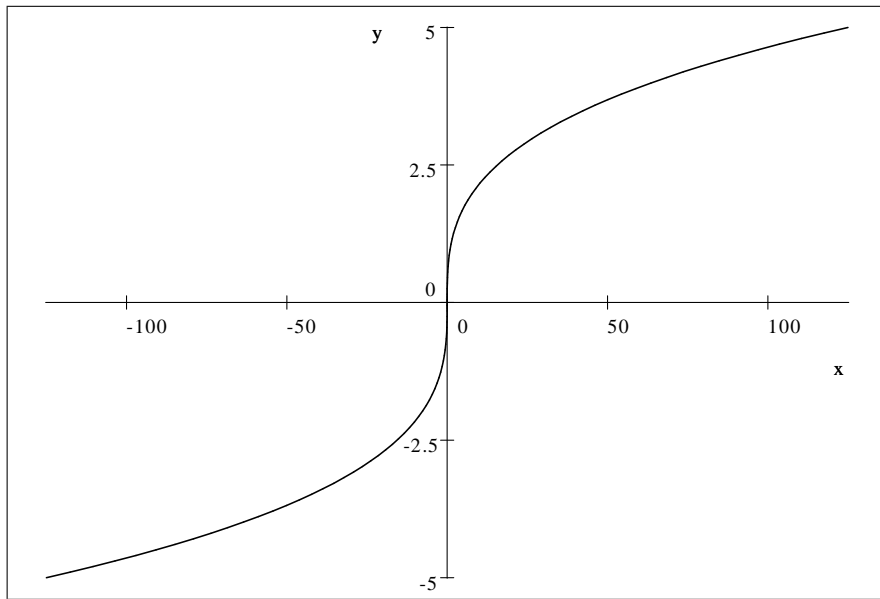
$$\begin{bmatrix} 1 & 2 & 4 & 5 \\ 2 & 3 & 6 & 5 \end{bmatrix} (1, 2, 2, 3, 4, 6, 5, 5)$$



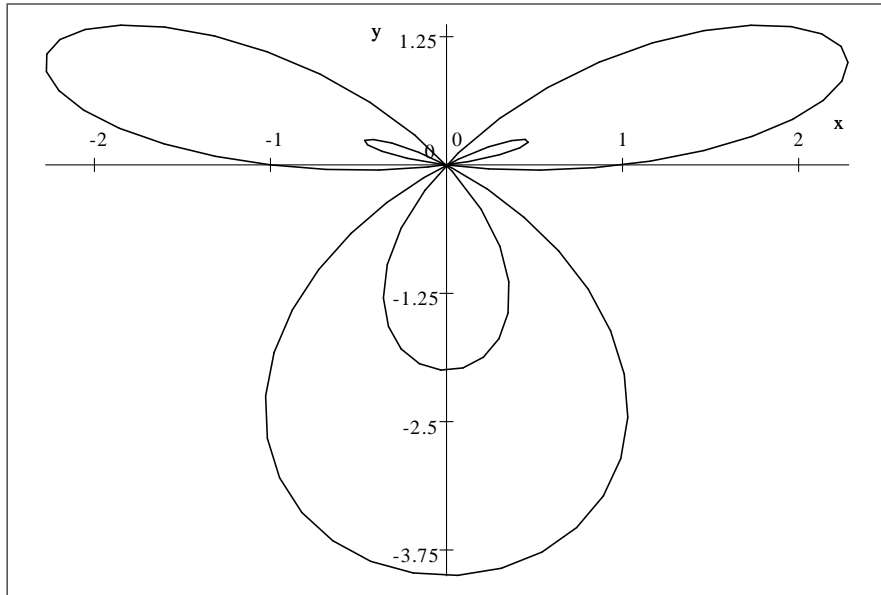
$$\sqrt[3]{x}$$



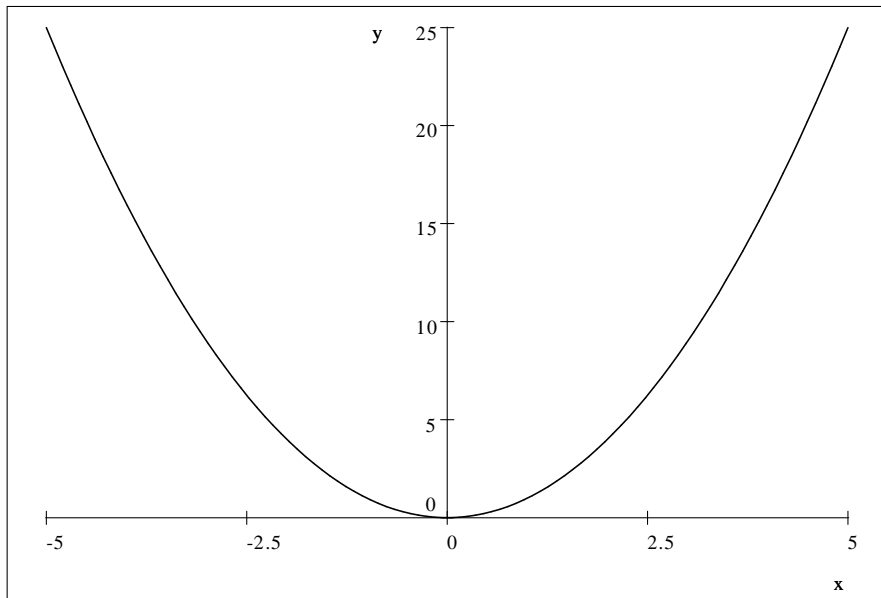
(x^3, x)



$1 - \sin \theta + 2 \sin 3\theta$



(r, r^2)



2 Project 10

Instructions: Create a file containing a collection (10-15) of 2D and 3D graphs of your choice that demonstrate the graphing capabilities of SWP. Your doc-

ument should also include two referenced citations. You do not need to include extra text. However, if you learn something interesting about graphing, include some comments presenting your findings. Submit a .rap version of your file to teprice@uakron.edu. The name of your file should be of the form **yourlastname10.rap**. Be sure to include the graphs in your rap file but not the style files. All calculations should be done using the CAS in SWP.

References

- [1] T.E. Price, My first graph, Some research paper, 2005
- [2] <http://...>
- [3] Ben Student, Research paper, Fibonacci Quarterly, 2006
- [4] kckckckck