

## Linear Rational Functions with Obvious Asymptotes

**David B. Sher**

*Nassau Community College*

This article presents the algebra of linear rational functions whose branches all appear on a domain of  $[-10, 10]$  piece of graph paper and whose asymptotes are clear. It also includes a Python program that produces a list of such functions and a list of rational functions that graph well. A measure of how quickly the function approaches the asymptote is presented.

Keywords: linear rational functions, asymptote, Python programming, graphing



**David B. Sher** has been a professor in the Math, Computer Science and Information Technology Department of Nassau Community College since 1992. He has published extensively on educational topics in mathematics and computer science (20 refereed journal publications) and given multiple conference presentations. For details, see <https://matcmp.ncc.edu/sherd/labcv.htm>.