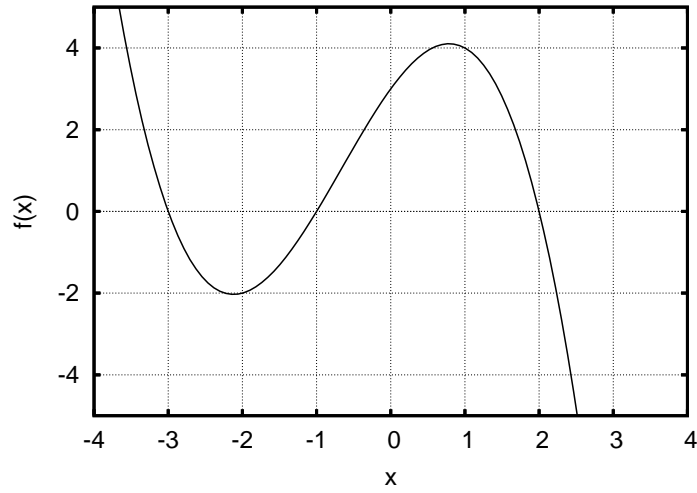# Polynomials

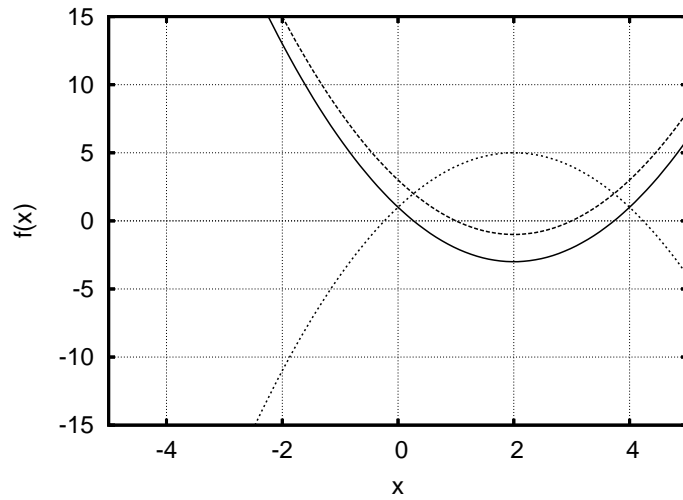Figure 1: Determine a possible function for this graph.

Figure 2: Plots of $f(x) = x^2 - 4x + 1$, $g(x) = x^2 - 4x + 3$, and $h(x) = -x^2 + 4x + 1$. Which function is which?
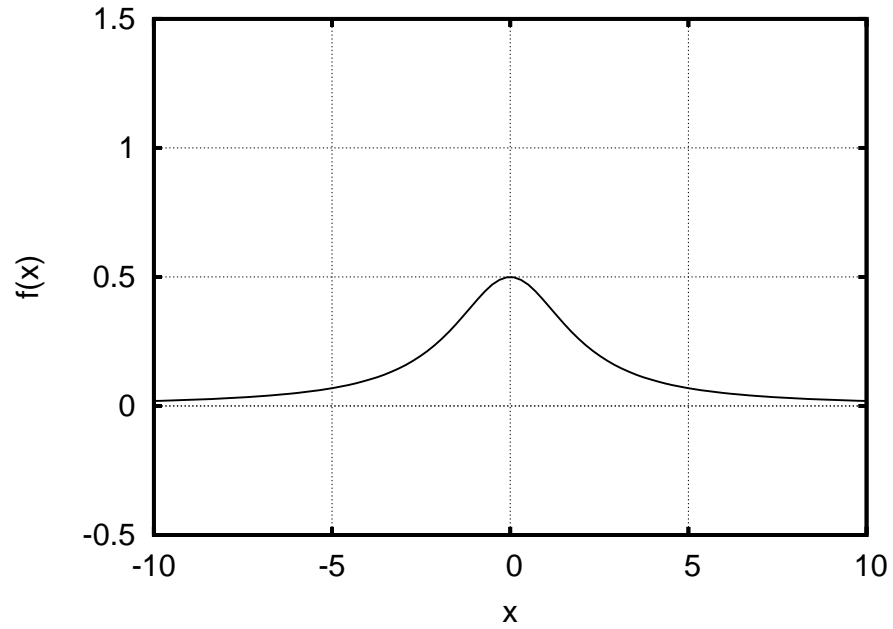
Figure 3: Plot of $\frac{2}{x^2+4}$. Explain why this graph has the shape that it does.
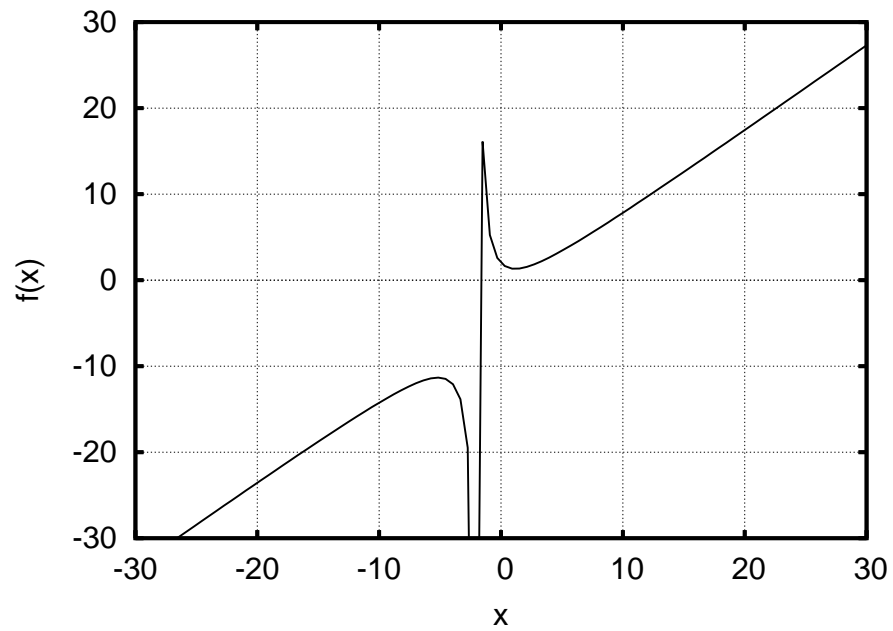

Figure 4: Plot of $f(x) = \frac{x^2-x+4}{x+2}$. Explain why the plot looks like it does.