Written Assignment 1 (due 8/27/12)

Exercise 1: Problem 46 from section 1.4 of the textbook.

Exercise 2: Problem 50 from section 1.5 of the book.

Challenge Problem: This problem will *not* be graded. It is simply to give you a little practice with some of the concepts in section 1.3 and a challenge for those who want it.

Consider the function $f(x) = \frac{1}{x-1}$. Note that the function is neither even nor odd.

(a) Graph $f(x)$.

(b) It turns out that there exist functions $g(x)$ and $h(x)$ such that $f(x) = g(x) + h(x)$, where $g(x)$ is an even function and $h(x)$ is odd. Find $g(x)$ and $h(x)$. You will need to be creative and really think about the definitions.