Section 1.1 Four Ways to Represent a Function

1. You should understand and be able to provide the definition of the following terms and concepts from this section:
   (a) function
   (b) the value of f at x
   (c) domain
   (d) range
   (e) independent variable
   (f) dependent variable
   (g) graph
   (h) piecewise function
   (i) absolute value
   (j) even function vs odd function
   (k) increasing vs decreasing function

2. Write answers to the following questions in your notebook.
   (a) Think of a function. Express it verbally, numerically, visually and algebraically. What is its domain and range?
   (b) Give an example of a piecewise function that occurs in real life.
   (c) Explain why the vertical line tests can be used to check if a graph represents a function. What could the horizontal test be used for?
   (d) Are all functions either even or odd? Can a function be neither? Can a function be both? Are all functions either increasing or decreasing?

Homework

1. WebAssign Problems: 1.1: 1, 5, 7, 30, 33, 34, 39, 43

2. Hand-Written Problems to turn in: 12, 18, 46