

# Homework 3

This homework is due by 6PM on Friday 1/28/11. You are encouraged to work on the problem sets as a group, but each student must hand in their own problem set.

## 1 Inverse functions

Textbook Questions: Section 3.6: Problems 4, 9, 14, 18, 50

## 2 Equations of lines and linear functions

Textbook Questions: Section 1.6: Problems 2a, 4, 9 (see below), 12, 26, 36, 50

In problem 9, instead of doing the problem asked, find the function  $N(t)$ , i.e. the function that describes the variation of the number of cigarettes produced with time)

Textbook Questions: Section 4.1: Problems 2, 10, 14, 30, 36

For problem 30, before you do question (a), find the equation of the line that would go through the first point and the last point on the table (i.e. the points (1986, 69075) and (1992, 53136)). Compare your line equation with the expression for  $f(x)$ : how close are the two expressions?