

# Chapter 6

## Homework Assignment

1. Here are the values of the CPI (multiplied by 100) for the fictitious country "Alpha" for the years 1995 - 2000. For each year, beginning with 1996, calculate the rate of inflation from the previous year. Graph the inflation rate over the decade and describe what happened to inflation rates between 1995 and 2000.

1995	120
1996	130
1997	138
1998	144
1999	147
2000	150

2. You have just graduated from college. You, your older sister, your mother and you father are comparing the starting salaries in your first jobs. The year you each started your first job, the CPI in that year (multiplied by 100) and your starting salary are given below. Which of you started your first job with the highest real income?

	Year	CPI	Starting Salary
You	2000	110	32,000
Your father	1965	83	24,900
Your mother	1975	91	29,120
Your older sister	1990	100	26,000

3. You are lending \$100 to your roommate for a year. You both agree that you should earn a 5% rate of return for the year.
  - a. If you make the loan in the base year, and you expect the inflation rate to be 10% over the year, what nominal rate of interest should you charge your roommate?
  - b. If you charge the interest rate you determined in part a, but the actual inflation rate was 12%, what was your real rate of return on the loan?

### Key

1.  $1996 = (130 - 120)/120 = 8.3\%$   
 $1997 = (138 - 130)/130 = 6.2\%$   
 $1998 = (144 - 138)/138 = 4.3\%$

$$1999 = (147 - 144)/144 = 2.1\%$$

$$2000 = (150 - 147)/147 = 2.0\%$$

Inflation rates fell over the period.

2. Your mother (real incomes are listed below).

You - \$29,091

Your father - \$30,000

Your mother - \$32,000

Your sister - \$26,000

3.a.  $10\% + 5\% = 15\%$

b.  $15\% - 12\% = 3\%$