

PRACTICE EXERCISES FOR CHAPTER 7

The exercises below are designed to facilitate your understanding of the mathematical and graphical concepts relevant to Chapter 7. Use your lecture notes and textbook to complete the problems and THEN “grade” yourself using my solutions, which are provided on the last few pages of this packet. **Remember, completing this exercise set is only a PART of the exam preparation process in this course!**

As you work through the exercises for THIS CHAPTER, keep in mind that you’re doing TWO things: using a calculator to get a correct numerical solution AND understanding which formula to use and how to set up the problem for a correct numerical solution. Both aspects are EQUALLY IMPORTANT TO ME! Since you are not allowed to use calculators on exams in my course, give some thought to which of these THINGS will be most important when it comes EXAM time!

1. My dad claims that back in 1950, he could do all of the following with \$0.25: ride the bus to the movie theater, purchase a movie ticket, popcorn, candy and a soda, and purchase a bus ticket home. Given that the CPI (1950) = 24.1 and the CPI (2008) = 215.3, what’s the 25 cents equivalent to in year 2008 dollars?

2. In 1993, I paid \$17,200 for a brand-new Pontiac Firebird. Given that the CPI (1993) = 144.5 and CPI (2008) = 215.3, what’s the price of my car equivalent to in year 2008 dollars?

3. In 1975, a gallon of gasoline was priced at \$2.09. Given that the CPI (1975) = 53.8 and CPI (2008) = 215.3, what’s the price of a gallon of gas equivalent to in year 2008 dollars?

4. In 2004, I paid \$753 for a round-trip plane ticket to Hawaii. Given that the CPI (2004) = 188.9 and CPI (2008) = 215.3, what’s the price of the plane ticket equivalent to in year 2008 dollars?

Assume it is December 2005. You are meeting with your supervisor to discuss your performance evaluation for the past year. Your boss says he's quite pleased with your performance and offers you a "raise". Your current annual nominal salary is \$38,000. Your boss offers you a 4% increase in that nominal salary.

5. What is the dollar value of your offered "raise"?

6. If you accept the "raise", what would your nominal salary be for 2006?

7. The annual value of the CPI was 195.3 in 2005 and 201.6 in 2006. By what percent did average prices rise during this time period?

8. In percentage terms, does your offered "raise" equal inflation, beat inflation, or leave you worse off?

9. If your boss really wanted to reward you by 4% for the coming year, what percentage increase in your nominal salary should he offer you?

10. In dollar terms, that increase in nominal salary would be _____ .

Consider the information in the table below.

YEAR	CPI VALUE	YEAR	CPI VALUE
1920	17.9	1970	38.8
1930	16.7	1980	82.4
1940	14.0	1990	130.7
1950	24.1	2000	172.2
1960	29.6	2008	215.3

11. What was the inflation rate between 1920 and 1930?

12. What was the inflation rate between 1930 and 1940?

13. What was the inflation rate between 1940 and 1950?

14. What was the inflation rate between 1950 and 1960?

15. What was the inflation rate between 1960 and 1970?

16. What was the inflation rate between 1970 and 1980?

17. What was the inflation rate between 1980 and 1990?

18. What was the inflation rate between 1990 and 2000?

19. What was the inflation rate between 2000 and 2008?

20. So, in which recent decade did the US experience the highest inflation rate?

MY SOLUTIONS

(1) \$2.23

(2) \$25,627.40

(3) \$8.36

(4) \$858.24

(5) \$1,520

(6) \$39,520

(7) 3.23%

(8) Beat it by 0.77 percentage points

(9) $4.00 + 3.23 = 7.23\%$

(10) \$2,747.40

(11) -6.70%

(12) -16.17%

(13) 72.14%

(14) 22.82%

(15) 31.08%

(16) 112.37%

(17) 58.62%

(18) 31.75%

(19) 25.03%

(20) Figure it out!