

1. ____/15	3. ____/15
2. ____/10	4. ____/15
Total: ____/55	

Name: _____
Period: _____

AP Macro Problem Set #3

Unit 3: Measurement of Economic Performance

1. (____/15 Points) **Gross Domestic Product**
 - a. Define GDP, identify what is not included, define the four components, and give an example of each (____/5)
 - b. Explain the difference between nominal GDP and real GDP. Use a simplified numerical example with two different years to show your understanding. (____/5)
 - c. If someone told you that the nominal GDP increased by 4% in 2004 explain why you would need two additional pieces of information to conclude that the standard of living for the typical person also increased by 4%. (____/5)

2. (____/10 Points) **Unemployment**
 - a. Define and give examples of the three types of unemployment discussed in class. (____/5)
 - b. How is the unemployment rate calculated? What is the Natural Rate of Unemployment? Do we want zero unemployment? (____/5)

3. (____/15 Points) **Inflation**
 - a. Define and identify how to calculate the Consumer Price Index (CPI)? Explain the meaning of the following CPIs relative to a base year. Year 1=90, Year 2=100, Year 3=125, Year 4=150. Lastly explain why the percent change in prices from year 3 to year 4 is NOT 25%. (____/5)
 - b. Identify how to calculate nominal interest rates and real interest rates. Assume that you put \$100 in the bank. Use numeric examples to explain three different scenarios in which your REAL income falls, stays the same, and increases. (____/5)
 - c. If the actual inflation is greater than the anticipated inflation, fully explain who would benefit and who would be hurt and explain WHY? (____/5)

4. (____/15 Points) Practice FRQs
 - a. FRQ #1 (____/8)
 - b. FRQ #2 (____/7)

3. Indicate whether each of the following is counted in the United States gross domestic product for the year 2006. Explain each of your answers.
- (a) The value of a used textbook sold through an online auction in 2006
 - (b) Rent paid in 2006 by residents in an apartment building built in 2000
 - (c) Commissions earned in 2006 by a stockbroker
 - (d) The value of automobiles produced in 2006 entirely in South Korea by a firm fully owned by United States citizens

OUTPUTS AND PRICES IN GALA LAND

This Year's Output	This Year's Price
400 loaves of bread	\$6 per loaf
1,000 gallons of water	\$2 per gallon
800 pieces of fruit	\$2 per piece

Gala Land produces three final goods: bread, water, and fruit. The table above shows this year's output and price for each good.

- (a) Calculate this year's nominal gross domestic product (GDP).
- (b) Assume that in Gala Land the GDP deflator (GDP price index) is 100 in the base year and 150 this year. Calculate each of the following.
 - (i) The inflation rate, expressed as a percentage, between the base year and this year
 - (ii) This year's real GDP
- (c) Since the base year, workers have received a 20 percent increase in their nominal wages. If workers face the same inflation that you calculated in part (b)(i), what has happened to their real wages? Explain.
- (d) If the GDP deflator in Gala Land increases unexpectedly, would a borrower with a fixed-interest-rate loan be better off or worse off? Explain.