

## Unit 2: Fun Set 2.1

Name: \_\_\_\_\_

In each of the following cases, determine the effect on GDP and each of its components (if at all).

1. Debbie spends \$200 to buy her husband dinner at the finest restaurant in Boston.
2. Sarah spends \$1800 on a new laptop to use in her publishing business. The laptop was built in China.
3. Jane spends \$1200 on a computer to use in her editing business. She got last year's model on sale for a great price from a local manufacturer.
4. General Motors builds \$500 million worth of cars, but consumers only buy \$470 million worth of them.

Year	Pizza		Latte	
	<i>P</i>	<i>Q</i>	<i>P</i>	<i>Q</i>
2002	\$10	400	\$2.00	1000
2003	\$11	500	\$2.50	1100
2004	\$12	600	\$3.00	1200

5. Based on the data above, compute the nominal GDP for each year as well as the change in nominal GDP from 2002-2003 and 2003-2004.
6. Based on the data above, use 2002 as the base year and compute the real GDP for each year as well as the change in real GDP from 2002-2003 and 2003-2004.

### 2007 FRQ:

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

## 2012 Audit Exam

6. Which of the following best illustrates an improvement in a country's standard of living?
- (A) An increase in real per capita gross domestic product
  - (B) An increase in nominal per capita gross domestic product
  - (C) Price stability
  - (D) A balanced budget
  - (E) An increase in the consumer price index

29. Which of the following will lead to an increase in the United States gross domestic product?
- (A) More individuals prepare their own personal income tax forms.
  - (B) Some citizens begin working abroad as computer programmers.
  - (C) The government prohibits the sale of alcoholic beverages.
  - (D) Foreign companies build new assembly plants in the United States.
  - (E) A million United States households sell their used cars to their children.

	National Economic Figures (billions of dollars)
Consumption	\$ 3,000
Government purchases of goods and services	1,000
Gross private domestic investment	700
Depreciation	300
Exports	300
Imports	500
Indirect business taxes	0

32. Based on the economic figures in the table above, what is the value of gross domestic product, in billions of dollars?
- (A) \$4,500
  - (B) \$4,700
  - (C) \$4,900
  - (D) \$5,150
  - (E) \$5,950

56. Which of the following household purchases will be counted as part of gross private investment in a country's gross domestic product?
- (A) Government bonds
  - (B) Shares of a company stock
  - (C) Corporate bonds
  - (D) A new car for personal use
  - (E) A newly constructed home

Year	Nominal GDP	Real GDP (in 1970 dollars)	Population	GDP Deflator	Real GDP per capita
1960	\$526.40	\$1,501.80	180		
1970	3,038.50	3,038.50	205		
1980	5,803.10	\$3771.90	227		

Use the table above to answer these questions:

1. Calculate the GDP Deflator for each year and enter it in the table.
2. Which year is the base year? How do you know?
3. Calculate the Real GDP per capita for each year and enter it in the table.
4. In which year was the standard of living the best for this country? How do you know?
5. What is the GDP Growth Rate from 1960 to 1980?

Year	Nominal GDP	Real GDP
2002	\$6000	\$6000
2003	\$8250	\$7200
2004	\$10,800	\$8400

7. Based on the data above, calculate the change in real and nominal GDP from 2002-2003 and 2003-2004.
8. Based on the data above, compute the GDP Deflator for each year as well as the change in the GDP Deflator from 2002-2003 and 2003-2004.

	2004 (base yr)		2005		2006	
	<i>P</i>	<i>Q</i>	<i>P</i>	<i>Q</i>	<i>P</i>	<i>Q</i>
good A	\$30	900	\$31	1,000	\$36	1050
good B	\$100	192	\$102	200	\$100	205

Use the above data to solve these problems:

9. Compute nominal GDP in 2004.
10. Compute real GDP in 2005.
11. Compute the GDP deflator in 2006.

**2008 Form B FRQ:**

**OUTPUTS AND PRICES IN GALA LAND**

<b>This Year's Output</b>	<b>This Year's Price</b>
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.

Show your work on all of the following practice problems:

1. Assume that the nominal GDP is \$60 billion and the real GDP is \$40 billion. Calculate the GDP deflator.
2. Assume that the nominal GDP is \$70 billion and the GDP deflator is 140. Calculate the real GDP.
3. Assume that the real GDP in Year 2022 is \$8000 and the GDP deflator is 200. Calculate the Nominal GDP.
4. In an economy, Real GDP (base year = 1996) is \$100 billion and the Nominal GDP is \$150 billion. Calculate the GDP deflator.
5. In an economy, Real GDP (base year = 1996) is \$125 billion and the Nominal GDP is \$150 billion. Calculate the GDP deflator.
6. In an economy, Real GDP for year 2002 (base year = 1996) is \$200 billion and the GDP deflator 2002 (base year = 1996) is 120. Calculate the Nominal GDP for 2002.
7. In an economy, Nominal GDP for year 2005 (base year = 1996) is \$60 billion and the GDP deflator 2005 (base year = 1996) is 120. Calculate the Real GDP for 2005.