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. **+ $200 C**

2. Sarah spends $1800 on a new laptop to use in her publishing business. The laptop was built in China.
+ $1800 I - $1800 M

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. **+$1200 I - $1200 I(Inventories)**

4. General Motors builds $500 million worth of cars, but consumers only buy $470 million worth of them.
+ $470 C + $30 I(Inventories)

	Pizza		Latte	
Year	**P**	**Q**	**P**	**Q**
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.
Nom GDP 2002: ($10 x 400) + ($2 x 1000) = $6000
Nom GDP 2003: ($11 x 500) + ($2.50 x 1100) = $8250
Nom GDP 2004: ($12 x 600) + ($3 x 1200) = $10,800
Change in nominal GDP from 2002 to 2003: 8250-6000   x 100 = 37.5%
**   6000**
Change in nominal GDP from 2003 to 2004: 10,800-8250   x 100 = 30.9%
**   8250**

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.
Real GDP 2002: ($10 x 400) + ($2 x 1000) = $6000
Real GDP 2003: ($10 x 500) + ($2 x 1100) = $7200
Real GDP 2004: ($10 x 600) + ($2 x 1200) = $8,400
Change in real GDP from 2002 to 2003: 7200-6000   x 100 = 20%
**   6000**
Change in real GDP from 2003 to 2004: 8,400-7,200   x 100 = 16.7%
**   7,200**

8 points (2 + 2 + 2 + 2)

(a) 2 points:
- One point is earned for stating that the value of the textbook is not included.
- One point is earned for explaining that a used item has already been counted in a previous year, or is not part of 2006 production.

(b) 2 points:
- One point is earned for stating that the rent payment is included.
- One point is earned for explaining that the payment is for service provided in 2006.

(c) 2 points:
- One point is earned for stating that the commissions are included.
- One point is earned for explaining that the commissions represent income for providing service in 2006.

(d) 2 points:
- One point is earned for stating that the value is not included in the U.S. GDP.
- One point is earned for explaining that U.S. GDP does not include production outside of the U.S.

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

Key: 6 = A
29 = D
32 = A
56 = E

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	**35**	**8.34**
1970	3,038.50	3,038.50	205	**100**	**14.82**
1980	5,803.10	$3771.90	227	**153.8**	**16.61**

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? **1970 is base year b/c nominal GDP is equal to real GDP in that year.**
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? **In 1980 b/c the real GDP per capita was highest that year.**
5. What is the GDP Growth Rate from 1960 to 1980? **$\frac{3,771.9 - 1,501.80}{1,501.80}$ x 100 = 151.1%**

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.

Change in nominal GDP from 2002 to 2003: $\frac{8250-6000}{6000}$ x 100 = 37.5%

Change in nominal GDP from 2003 to 2004: $\frac{10,800-8250}{8250}$ x 100 = 30.9%

Change in real GDP from 2002 to 2003: $\frac{7200-6000}{6000}$ x 100 = 20%

Change in real GDP from 2003 to 2004: $\frac{8,400-7,200}{7,200}$ x 100 = 16.7%

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.

GDP Deflator 2002: 6000 ÷ 6000 x 100 = 100

GDP Deflator 2003: 8250 ÷ 7200 x 100 = 114

GDP Deflator 2004: 10,800 ÷ 8,400 x 100 = 128.5

Change in GDP deflator from 2002 to 2003: $\frac{114-100}{100}$ x 100 = 14%

Change in GDP deflator from 2003 to 2004: $\frac{128.5-114}{114}$ x 100 = 12.7%

\

	2004 (base yr)		2005		2006	
	P	*Q*	*P*	*Q*	*P*	*Q*
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.
Nominal GDP 2004: ($30 x 900) + ($100 x 192) = $46,200

10. Compute real GDP in 2005.
Real GDP 2005: ($30 x 1000) + ($100 x 200) = $50,000

11. Compute the GDP deflator in 2006.
Nominal GDP 2006: ($36 x 1050) + ($100 x 205) = $58,300
Real GDP 2006: ($30 x 1050) + ($100 x 205) = $52,000
GDP Deflator: (58,300 ÷ 52,000) x 100 = 112

2008 Form B FRQ:

7 points (1 + 2 + 2 + 2)

(a) 1 point:
- One point is earned for calculating today's GDP = ($6 x 400) + ($2 x 1,000) + ($2 x 800) = $6,000.

(b) 2 points:
- One point is earned for stating that the inflation rate is 50 percent [(150-100)/100].
- One point is earned for calculating this year's real GDP = $6,000/1.5 = $4,000.

(c) 2 points:
- One point is earned for stating that real wages would fall.
- One point is earned for the explanation that the wages rose by only 20 percent as compared to the inflation rate of 50 percent, causing a 30 percent fall in real wages.

(d) 2 points:
- One point is earned for concluding that a borrower would be better off.
- One point is earned for the explanation that, due to the higher inflation, the borrower is paying back the loan using fewer real dollars.