Name: _____ Class: _____ Date: _____

Chapter 2

1. The economic statistic used to measure the level of prices is:
   a. gross domestic product (GDP).
   b. consumer price index (CPI).
   c. gross national product (GNP).
   d. real GDP.

ANSWER: b

2. The statistic economists use to measure the value of economic output is:
   a. the consumer price index (CPI).
   b. gross domestic product (GDP).
   c. the GDP deflator.
   d. the unemployment rate.

ANSWER: b

3. The total income of everyone in the economy is exactly equal to the total:
   a. expenditure on the economy's output of goods and services.
   b. consumption expenditures of everyone in the economy.
   c. expenditures of all businesses in the economy.
   d. government expenditures.

ANSWER: a

4. An economy's _____ equals its _____.
   a. consumption; income
   b. consumption; expenditure on goods and services
   c. expenditure on goods; expenditures on services
   d. total income; total expenditure on goods and services

ANSWER: d

5. Two equivalent ways to view gross domestic product (GDP) are as the:
   a. total payments made to all workers in the economy or the total profits of all firms and businesses in the economy.
   b. total expenditures on all goods produced in the economy or the total income earned from producing all services in the economy.
   c. total profits of all firms and businesses in the economy or the total consumption of goods and services by all households in the economy.
   d. total income of everyone in the economy or the total expenditure on the economy's output of goods and services.

ANSWER: d

6. In the circular flow model, the flow of dollars from firms to households is paid _____, and the flow of dollars from households to firms is paid _____.

Chapter 2

a. as wages, capital income, and profits; for goods and services
b. for value added; as imputed values
c. in current dollars; in constant dollars
d. as interest and dividends; for depreciation and taxes

ANSWER: a

7. Which of these is a flow variable?
a. wealth
b. the number unemployed
c. government debt
d. income

ANSWER: d

8. Which of these is a stock variable?
a. wealth
b. consumption
c. investment
d. income

ANSWER: a

9. All of these are stock variables EXCEPT:
a. a consumer's wealth.
b. the government budget deficit.
c. the number of unemployed people.
d. the amount of capital in the economy.

ANSWER: b

10. All of these are flow variables EXCEPT:
a. the number of new automobile purchases.
b. the number of people losing their jobs.
c. business expenditures on plant and equipment.
d. the government debt.

ANSWER: d

11. The amount of capital in an economy is a(n) _____, and the amount of investment is a(n) _____.
a. flow; stock
b. stock; flow
c. final good; intermediate good
d. intermediate good; final good

ANSWER: b

Chapter 2

12. The market value of all final goods and services produced within an economy in a given period of time is called:

a. industrial production.
b. gross domestic product.
c. the gross domestic product (GDP) deflator.
d. general durable purchases.

ANSWER: b

13. Gross domestic product (GDP) is the market value of all _____ goods and services produced within an economy in a given period of time.

a. used
b. intermediate
c. consumer
d. final

ANSWER: d

14. Assume that total output consists of four apples and six oranges and that apples cost $1 each and oranges cost $0.50 each. In this case, the value of gross domestic product (GDP) is:

a. 10 pieces of fruit.
b. $7.
c. $8.
d. $10.

ANSWER: b

15. All of these transactions that took place in 2009 would be included in gross domestic product (GDP) for 2009 EXCEPT the purchase of a:

a. book titled *The Year 3000* that was printed in 2009.
b. 2001 Jeep Cherokee.
c. year 2010 calendar printed in 2009.
d. ticket to see the movie *2001*.

ANSWER: b

16. When a firm sells a product out of inventory, gross domestic product (GDP):

a. increases.
b. decreases.
c. is not changed.
d. increases or decreases, depending on the year the product was produced.

ANSWER: c

17. When a firm sells a product out of inventory, investment expenditures _____, and consumption expenditures

Chapter 2

_____.

a. increase; decrease
b. decrease; increase
c. decrease; remain unchanged
d. remain unchanged; increase

ANSWER: b

18. Assume that a bakery hires more workers and pays them wages and that the workers produce more bread. Gross domestic product (GDP) increases in all of these cases EXCEPT when the bread:

a. is sold to households.
b. is stored away for later sale.
c. grows stale and is thrown away.
d. is sold to other firms.

ANSWER: c

19. When bread is baked but put away for later sale, this is called:

a. waste.
b. saving.
c. fixed investment.
d. investment in inventory.

ANSWER: d

20. Assume that a rancher sells McDonald's a quarter-pound of meat for $1 and that McDonald's sells you a hamburger made from that meat for $2. In this case, gross domestic product (GDP) increases by:

a. $0.50.
b. $1.
c. $2.
d. $3.

ANSWER: c

21. Assume that a tire company sells four tires to an automobile company for $400, another company sells a navigation system for $500, and the automobile company puts all of these items in or on a car that it sells for $20,000. In this case, the amount from these transactions that should be counted in gross domestic product (GDP) is:

a. $20,000.
b. $20,000 less the automobile company's profit on the car.
c. $20,900.
d. $20,900 less the profits of all three companies on the items that they sold.

ANSWER: a

Chapter 2

22. The value added of an item produced refers to:
    a. a firm's profits on the item sold.
    b. the value of the labor inputs in the production of an item.
    c. the value of a firm's output less the value of its costs.
    d. the value of a firm's output less the value of the intermediate goods that the firm purchases.

ANSWER: d

23. Assume that a firm buys all the parts that it puts into an automobile for $10,000, pays its workers $10,000 to fabricate the automobile, and sells the automobile for $22,000. In this case, the value added by the automobile company is:
    a. $10,000.
    b. $12,000.
    c. $20,000.
    d. $22,000.

ANSWER: b

24. In computing gross domestic product (GDP):
    a. expenditures on used goods are included.
    b. production added to inventories is excluded.
    c. the amount of production in the underground economy is imputed.
    d. the value of intermediate goods is included in the market price of the final goods.

ANSWER: d

25. To avoid double counting in the computation of gross domestic product (GDP), GDP includes only the value of _____ goods.
    a. final
    b. used
    c. intermediate
    d. investment

ANSWER: a

26. An example of an imputed value in the gross domestic product (GDP) is the:
    a. value added of meals cooked at home.
    b. housing services enjoyed by homeowners.
    c. rental services of automobiles to their owners.
    d. value of illegal drugs sold.

ANSWER: b

27. In principle, the gross domestic product (GDP) accounts should—but do not—have an imputation for:
    a. housing services enjoyed by homeowners.

Chapter 2

b. rental services of automobiles driven by owners.
c. meals cooked in restaurants.
d. housing services enjoyed by renters.

ANSWER: b

28. The underground economy:
a. is included in the latest gross domestic product (GDP) accounts.
b. includes only illegal activities.
c. includes domestic workers for whom Social Security tax is not collected.
d. excludes the illegal drug trade.

ANSWER: c

29. Nominal gross domestic product (GDP) means the value of goods and services is measured in _____ prices.
a. current
b. real
c. constant
d. average

ANSWER: a

30. Real gross domestic product (GDP) means the value of goods and services is measured in _____ prices.
a. current
b. actual
c. constant
d. average

ANSWER: c

31. Assume that apples cost $0.50 in 2002 and $1 in 2009, whereas oranges cost $1 in 2002 and $1.50 in 2009. If 4 apples were produced in 2002 and 5 in 2009, whereas 3 oranges were produced in 2002 and 4 in 2009, then real gross domestic product (GDP) (in 2002 prices) in 2009 was:
a. $5.
b. $6.50.
c. $9.50.
d. $11.

ANSWER: b

32. If nominal gross domestic product (GDP) in 2009 equals $14 trillion and real GDP in 2009 equals $11 trillion, what is the value of the GDP deflator?
a. 0.79
b. 1.03
c. 1.27

Chapter 2

d. 3.2

ANSWER: c

33. If the gross domestic product (GDP) deflator in 2009 equals 1.25 and nominal GDP in 2009 equals $15 trillion, what is the value of real GDP in 2009?

a. $12 trillion
b. $12.5 trillion
c. $15 trillion
d. $18.75 trillion

ANSWER: a

34. The gross domestic product (GDP) deflator is equal to:

a. the ratio of nominal GDP to real GDP.
b. the ratio of real GDP to nominal GDP.
c. real GDP minus national GDP.
d. nominal GDP minus real GDP.

ANSWER: a

35. Assume that apples cost $0.50 in 2002 and $1 in 2009, whereas oranges cost $1 in 2002 and $1.50 in 2009. If 4 apples were produced in 2002 and 5 in 2009, whereas 3 oranges were produced in 2002 and 5 in 2009, then the gross domestic product (GDP) deflator in 2009, using a base year of 2002, was approximately:

a. 1.5.
b. 1.7.
c. 1.9.
d. 2.0.

ANSWER: b

36. If nominal gross domestic product (GDP) grew by 5 percent and real GDP grew by 3 percent, then the GDP deflator grew by approximately _____ percent.

a. 2
b. 3
c. 5
d. 8

ANSWER: a

37. If nominal gross domestic product (GDP) increased by 5 percent and the GDP deflator increased by 3 percent, then real GDP _____ by _____ percent.

a. increased; 2
b. decreased; 2
c. increased; 8

Chapter 2

d. decreased; 8

ANSWER: a

38. Real gross domestic product (GDP) is a better measure of economic well-being than nominal GDP because real GDP:

a. excludes the value of goods and services exported aboard.
b. includes the value of government transfer payments.
c. measures changes in the quantity of goods and services produced by holding prices constant.
d. adjusts the value of goods and services produced for changes in the foreign exchange rate.

ANSWER: c

39. Chain-weighted measures of real gross domestic product (GDP) make use of prices from a(n):

a. unchanging base year.
b. continuously changing base year.
c. base year that is changed approximately every five years.
d. base year that is changed approximately every ten years.

ANSWER: b

40. The national income accounts identity for an open economy is:

a. $Y = C + I + G - NX$.
b. $Y = C + I + G + NX$.
c. $Y = C + I + G$.
d. $Y = C + I - G$.

ANSWER: b

41. If gross domestic product (GDP) measured in billions of current dollars is $5,465, consumption is $3,657, investment is $741, and government purchases are $1,098, then net exports are:

a. $131.
b. −$131.
c. $31.
d. −$31.

ANSWER: d

42. If gross domestic product (GDP) measured in billions of current dollars is $5,465, consumption is $3,657, investment is $741, and net exports are −$1,910, then government purchases are:

a. $2,977.
b. $1,910.
c. −$843.
d. $1,067.

ANSWER: a

Chapter 2

43. If real gross domestic product (GDP) grew by 6 percent and population grew by 2 percent, then real GDP per person grew by approximately _____ percent.

a. 2
b. 3
c. 4
d. 8

ANSWER: c

44. In the national income accounts, consumption expenditures include all of these EXCEPT household purchases of:

a. durable goods.
b. nondurable goods.
c. new residential housing.
d. services.

ANSWER: c

45. In the national income accounts, the purchases of durables, nondurables, and services by households are classified as:

a. consumption.
b. investment.
c. government purchases.
d. net exports.

ANSWER: a

46. In the national income accounts, goods bought for future use are classified as which type of expenditure?

a. services
b. investment
c. government purchases
d. net exports

ANSWER: b

47. If total investment measured in billions of current dollars equals $741, business fixed investment is $524, and residential fixed investment is $222, then inventory investment is:

a. $5.
b. −$5.
c. $15.
d. −$15.

ANSWER: b

48. In the national income accounts, all of these are classified as government purchases EXCEPT:

Chapter 2

a. payments made to Social Security recipients.
b. services provided by police officers.
c. purchases of military hardware.
d. services provided by U.S. senators.

ANSWER: a

49. In the national income accounts, government purchases are goods and services purchased by:
a. the federal government.
b. the federal and state governments.
c. the state and local governments.
d. the federal, state, and local governments.

ANSWER: d

50. In the national income accounts, net exports equal exported goods:
a. minus imported goods.
b. and services minus imported goods and services.
c. minus imported services.
d. and services plus imported goods and services.

ANSWER: b

51. If gross domestic product (GDP) measured in billions of current dollars is $5,465 and the sum of consumption, investment, and government purchases is $5,496, while exports equal $673, imports are:
a. $673.
b. −$673.
c. $704.
d. −$704.

ANSWER: c

52. All of these actions are investments in the sense of the term used by macroeconomists EXCEPT:
a. Apple building a new factory.
b. a corner candy store buying a new computer.
c. John Smith buying a newly constructed home.
d. Sandra Santiago buying 100 shares of Apple stock.

ANSWER: d

53. In 2013, the gross domestic product (GDP) of the United States totaled about:
a. $16.8 billion.
b. $168 billion.
c. $16.8 trillion.
d. $168 trillion.

Chapter 2

ANSWER: c

54. Gross national product (GNP) equals gross domestic product (GDP) _____ income earned domestically by foreigners _____ income that nationals earn abroad.

a. plus; plus
b. minus; minus
c. minus; plus
d. plus; minus

ANSWER: c

55. Net national product equals gross national product (GNP):

a. plus net investment.
b. minus net investment.
c. plus depreciation.
d. minus depreciation.

ANSWER: d

56. National income differs from net national product by an amount called:

a. depreciation.
b. indirect business taxes.
c. statistical discrepancy.
d. net foreign factor income payments.

ANSWER: c

57. The largest component of national income is:

a. corporate profits.
b. compensation of employees.
c. proprietors' income.
d. net interest.

ANSWER: b

58. Disposable personal income:

a. is computed by subtracting personal tax from personal income.
b. is generally greater than personal income.
c. includes corporate profits but not dividends.
d. does not include government transfers to individuals.

ANSWER: a

59. According to the usual seasonal pattern of the U.S. economy, gross domestic product (GDP) is highest in the quarter of the year that includes:

Chapter 2

a. January, February, and March.
b. April, May, and June.
c. July, August, and September.
d. October, November, and December.

ANSWER: d

60. A farmer grows wheat and sells it to a miller for $1; the miller turns the wheat into flour and sells it to a baker for $3; the baker uses the flour to make bread and sells the bread for $6. The value added by the miller is:

a. $1.
b. $2.
c. $3.
d. $6.

ANSWER: b

61. A woman marries her butler. Before they were married, she paid him $60,000 per year. He continues to wait on her as before (but as a husband rather than as a wage earner). She earns $1,000,000 per year both before and after her marriage. The marriage:

a. does not change gross domestic product (GDP).
b. decreases GDP by $60,000.
c. increases GDP by $60,000.
d. increases GDP by more than $60,000.

ANSWER: b

62. The consumer price index (CPI) is determined by computing:

a. an average of prices of all goods and services.
b. the price of a basket of goods and services that changes every year, relative to the same basket in a base year.
c. the price of a fixed basket of goods and services, relative to the price of the same basket in a base year.
d. nominal gross domestic product (GDP) relative to real GDP.

ANSWER: c

63. Prices of items included in the consumer price index (CPI) are:

a. averaged, with the price of every item weighted equally.
b. weighted according to the amount of the item produced in gross domestic product (GDP).
c. weighted according to the quantity of the item purchased by the typical household.
d. chained to the base year by the year-to-year growth rate of the item.

ANSWER: c

64. The core inflation rate:

Chapter 2

a. measures the change in producer prices.
b. is measured using a Paasche index.
c. excludes food and energy prices.
d. includes the price of exports and includes the price of imports.

ANSWER: c

65. Measuring the rate of inflation using a market basket that excludes food and energy prices is preferred by some analysts because this measure, called core inflation,

a. provides a real, rather than a nominal, rate of inflation.
b. gives a better measure of ongoing, sustained price changes.
c. is more consistent with measures of inflation used in other countries.
d. fluctuates more than measures of inflation that include food and energy prices.

ANSWER: b

66. An increase in the price of goods bought by firms and the government will show up in:

a. the consumer price index (CPI) but not in the gross domestic product (GDP) deflator.
b. the GDP deflator but not in the CPI.
c. both the CPI and the GDP deflator.
d. neither the CPI nor the GDP deflator.

ANSWER: b

67. An increase in the price of imported goods will show up in:

a. the consumer price index (CPI) but not in the gross domestic product (GDP) deflator.
b. the GDP deflator but not in the CPI.
c. both the CPI and the GDP deflator.
d. neither the CPI nor the GDP deflator.

ANSWER: a

68. Assume that the market basket of goods and services purchased in 2004 by the average family in the United States costs $14,000 in 2004 prices, whereas the same basket costs $21,000 in 2009 prices. However, the basket of goods and services actually purchased by the average family in 2009 costs $20,000 in 2009 prices, whereas this same basket would have cost $15,000 in 2004 prices. Given these data, a Laspeyres price index of 2009 prices using 2004 as the base year would be:

a. 1.05.
b. approximately 1.07.
c. approximately 1.33.
d. 1.50.

ANSWER: d

69. Assume that the market basket of goods and services purchased in 2004 by the average family in the United

Chapter 2

States costs $14,000 in 2004 prices, whereas the same basket costs $21,000 in 2009 prices. However, the basket of goods and services actually purchased by the average family in 2009 costs $20,000 in 2009 prices, whereas this same basket would have cost $15,000 in 2004 prices. Given these data, a Paasche index for 2009 using 2004 prices would be:

a. 1.05.
b. approximately 1.07.
c. approximately 1.33.
d. 1.50.

ANSWER: c

70. The consumer price index (CPI) is a:

a. Laspeyres price index.
b. Paasche price index.
c. Laspeyres quantity index.
d. Paasche quantity index.

ANSWER: a

71. The gross domestic product (GDP) deflator is a:

a. Laspeyres price index.
b. Paasche price index.
c. Laspeyres quantity index.
d. Paasche quantity index.

ANSWER: b

72. When prices of different goods are increasing by different amounts and households substitute away from more expensive goods, the price index that will rise the fastest is:

a. the PCE index.
b. the consumer price index (CPI).
c. the gross domestic product (GDP) deflator.
d. a Paasche index.

ANSWER: b

73. The panel of economists appointed by the Senate Finance Committee estimated that the consumer price index (CPI) _____ inflation by approximately _____ percentage point(s) per year.

a. overestimates; 1
b. overestimates; 10
c. underestimates; 1
d. underestimates; 10

ANSWER: a

Chapter 2

74. A fixed-weight price index like the consumer price index (CPI) _____ the change in the cost of living because it _____ take into account that people can substitute less expensive goods for ones that have become more expensive.

a. underestimates; does not
b. overestimates; does
c. accurately estimates; does
d. overestimates; does not

ANSWER: d

75. According to the definition used by the U.S. Bureau of Labor Statistics, a person is not in the labor force if that person:

a. is going to school full time.
b. is temporarily absent from a job because of illness.
c. has been temporarily laid off.
d. is out of a job and was looking for work during the previous four weeks.

ANSWER: a

76. According to the definition used by the U.S. Bureau of Labor Statistics, people are considered to be unemployed if they:

a. are out of a job but not looking for work.
b. retired from the labor force before age 65.
c. do not have a job but have looked for work in the past four weeks.
d. are absent from work because of bad weather or illness.

ANSWER: c

77. The labor force equals the:

a. adult population.
b. number of employed individuals.
c. number of unemployed individuals.
d. number of employed and unemployed individuals.

ANSWER: d

78. If 7 million workers are unemployed, 143 million workers are employed, and the adult population equals 200 million, then the unemployment rate equals approximately _____ percent.

a. 3.5
b. 4.7
c. 4.9
d. 7

ANSWER: b

Chapter 2

79. The labor-force participation rate is the percentage of the:
    a. adult population that is employed.
    b. adult population that is in the labor force.
    c. labor force that is employed.
    d. labor force that is unemployed.

ANSWER: b

80. If the unemployment rate is 6 percent and the number of employed is 188 million, then the labor force equals _____ million.
    a. 11.28
    b. 176.72
    c. 188
    d. 200

ANSWER: d

81. If an increasing proportion of the adult population is retired, then the labor-force participation rate:
    a. will increase.
    b. will decrease.
    c. will remain constant.
    d. may increase, decrease, or remain constant.

ANSWER: b

82. If the adult population equals 250 million, of which 145 million are employed and 5 million are unemployed, the labor-force participation rate equals _____ percent.
    a. 50
    b. 58
    c. 60
    d. 67

ANSWER: c

83. If the number of employed increases while the number of unemployed does not change, the unemployment rate:
    a. will increase.
    b. will decrease.
    c. will not change.
    d. may either increase or decrease.

ANSWER: b

84. In the United States since the end of World War II:
    a. the labor-force participation rates of both men and women have increased.

Chapter 2

b. the labor-force participation rates of both men and women have decreased.
c. the labor-force participation rate of men has increased, while the labor-force participation rate of women has decreased.
d. the labor-force participation rate of men has decreased, while the labor-force participation rate of women has increased.

ANSWER: d

85. The household survey conducted by the Bureau of Labor Statistics provides estimates of the number of workers _____, while the establishment survey provides estimates of the number of workers _____.
a. self-employed; unemployed
b. unemployed; self-employed
c. with jobs; on firms' payrolls
d. on firms' payrolls; with jobs

ANSWER: c

86. The employment statistics computed from the establishment survey do NOT include:
a. workers with two jobs.
b. those who are self-employed.
c. workers on firms' payrolls.
d. part-time workers on firms' payrolls.

ANSWER: b

87. A worker with two jobs is counted:
a. once in both the household and the establishment surveys.
b. once in the household survey but twice in the establishment survey.
c. once in the establishment survey but twice in the household survey.
d. twice in both the household survey and the establishment survey.

ANSWER: b

88. An estimate of the number of unemployed workers in the economy can be obtained from:
a. both the household survey and the establishment survey.
b. the household survey but not from the establishment survey.
c. the establishment survey but not from the household survey.
d. neither the household survey nor the establishment survey.

ANSWER: b

89. Economists can calculate the U.S. unemployment rate by using:
a. both the household survey and the establishment survey.
b. the household survey but not the establishment survey.
c. the establishment survey but not the household survey.

Chapter 2

d. neither the household survey nor the establishment survey.

ANSWER: b

90. Exhibit: Totals Recorded for United States (billions of dollars)

Durable goods consumption	$497
Nondurable goods consumption	1,301
Services consumption	2,342
Business fixed investment	566
Residential fixed investment	224
Inventory investment	7
Federal government purchases	449
State and local government purchases	683
Exports	640
Imports	670
Excess of GNP over GDP	7
Depreciation	658
Indirect business taxes	551
Corporate profits (includes wage accruals less disbursements)	387
Social insurance contributions	556
Net interest	442
Dividends (includes business transfer payments)	162
Government transfers to individuals	837
Personal interest income	694
Personal tax and nontax payments	645

*Note: The numbers given in this exhibit and the answers to the following question differ from those in Table 2-1 of the text.

In this exhibit, what were gross domestic product (GDP), consumption expenditures, investment expenditures, government purchases, and net exports?

ANSWER: $6,039; $4,140; $797; $1,132; and −$30 billion.

91. Exhibit: Totals Recorded for the United States

Durable goods consumption	$497
Nondurable goods consumption	1,301
Services consumption	2,342
Business fixed investment	566
Residential fixed investment	224
Inventory investment	7
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Chapter 2

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Government transfers to individuals	837
Personal interest income	694
Personal tax and nontax payments	645

*Note: The numbers given in this exhibit and the answers to the following question differ from those in Table 2-1 of the text.

In this exhibit, what were net national product, national income, personal income, and disposable personal income?

ANSWER: $5,388; $5,388; $5,145; and $4,500 billion.

92. Exhibit: Totals Recorded for the United States

Durable goods consumption	$497
Nondurable goods consumption	1,301
Services consumption	2,342
Business fixed investment	566
Residential fixed investment	224
Inventory investment	7
Federal government purchases	449
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*Note: The numbers given in this exhibit and the answers to the following question differ from those in Table 2-1 of the text.

Chapter 2

In this exhibit, what were the approximate ratios of consumption, investment, and government purchases to gross domestic product (GDP)?

ANSWER: about 69 percent; about 13 percent; and about 19 percent

93. Exhibit: Quantity Consumed and Price of Good

	Base Year	Later Year
Price of good A	100	200
Quantity of good A	100	200
Price of good B	100	100
Quantity of good B	100	100

In this exhibit, the citizens of country XYZ come to desire more of good A. As a result, the quantity and price of the good both rise.

a. Compute nominal gross domestic product (GDP) in the base year and later year.

b. Compute real GDP in the base year and later year.

c. Compute the GDP deflator in the later year, using your answers to parts (a) and (b).

d. Compute a fixed-weight price index for the later year, using the base-year quantities as weights.

e. Which price index rises faster, the GDP deflator (Paasche) index or the fixed-weight index (Laspeyres) index?

ANSWER: a. Base-year nominal GDP = 20,000. Later-year nominal GDP = 50,000.
b. Real GDP in base year = 20,000. Real GDP in later year = 30,000.
c. Gross national product (GNP) deflator in later year = 1.667.
d. Fixed-weight index = 1.50.
e. The Paasche index, with current quantity weights, rises faster in this case than the base-year quantity-weighted Laspeyres index.

94. Assume that two countries have the same nominal gross domestic product (GDP) (measured in the same currency using the same accounting rules). Provide at least three reasons why you cannot assume that citizens in each country enjoy approximately the same level of economic well-being.

ANSWER: Some possible, but not all, explanations include:
a. Different price levels in the two countries would result in different amounts of real GDP, that is, different quantities of goods and services available in each country.
b. Different-sized populations could result in different quantities of goods and services available per person in each country.
c. Different levels of nonmarket production in the two countries would alter the quantity of goods and services available in each country.
d. Different amounts of leisure time available (not captured in nominal GDP figures) would cause economic well-being to differ in the two countries.
e. Different distributions of income in the two countries could alter the quantity of goods and services available to the typical citizen in each country.
f. Different quantities of both positive and negative externalities associated with producing GDP, such as pollution and congestion, which are not measured in GDP, would cause the different levels

of economic well-being between the two countries.

95. A number of statistics are computed to measure the price level, such as the gross domestic product (GDP) deflator and the consumer price index (CPI). The choice of which of these measures to use depends in many cases on the specific question in which you are interested. For each of these situations, state whether the CPI or GDP deflator is a more appropriate measure to use and explain why the statistic is preferred.
a. You are interested in looking at the impact of higher prices of imported oil in the overall cost of living.
b. The government is interested in whether increases in defense spending are affecting the aggregate price level.
c. An economic consulting firm is investigating the impact on the aggregate price level of more computers and electronic technology used in production.

ANSWER: a. The CPI is the more appropriate statistic here because the price of imports is not included in the GDP deflator.
b. The GDP deflator is the more appropriate statistic here because the CPI does not include the prices of goods and services purchased by the government sector.
c. The GDP deflator is the more appropriate statistic here because the CPI does not include prices of goods and services purchased by businesses or the government sector.

96. There are a number of measures of aggregate economic activity, such as gross domestic product (GDP), gross national product (GNP), national income, personal income, and disposable personal income. Each of these measures can be a good indicator, depending on the issue under consideration. For each of these issues, give your reasons for selecting one of the measures just mentioned as the best indicator to use in studying the issue:
a. the proportion of income households save
b. the relative share of earnings going to labor versus capital
c. the total output of final goods and services

ANSWER: a. Disposable personal income provides a measure of the income households have to use for either consumption or saving after they pay taxes.
b. National income provides a measure of the income going to the factors of production.
c. GDP is the most complete measure of the value of newly produced goods and services in the economy. In contrast, personal income includes transfer payments, which do not represent newly produced goods and services.

97. Real gross domestic product (GDP) per capita is an imperfect measure of economic well-being because it does not value home production or production in the underground economy, among other factors. Give at least two examples that show why the omission of these types of items will make a difference in evaluating economic well-being. One example should explain how the omissions distort comparisons of economic well-being across countries, and another example should explain how the omission distorts comparisons of economic well-being in the same country over time.

ANSWER: Answers will vary, but one example could show that measured GDP in one country could be much lower than in another country, but the amount of home production in the first country could be very large. In this case, measured real GDP indicates a much larger difference in economic well-being than actually exists between the countries.
The other example could explain how changes in the amount of home production in a country over time make it difficult to compare economic well-being over time. For example, if most people

grew their own food initially and then over time moved to commercial agriculture, the increase in real GDP per person would overstate the increase in the amount of goods and services available in the country, since the food grown at home was not counted in real GDP in the early period.

98. Based on the data in the table, explain what happened to output and prices in the economy between 2009 and 2010.

	2009	2010
Nominal GDP ($ billions)	$14,700	$15,200
Real GDP ($ billions 2000 chain weighted)	$12,100	$11,900

ANSWER: Real GDP decreased, which indicates that the production of final goods and services was lower in 2010 than in 2009. Nominal GDP increased, which indicates that prices, on average, were higher in 2010 than in 2009, given that real GDP decreased.

99. Explain why the value of gross domestic product (GDP) in 2012 would or would not change as a result of each transaction described.
a. In 2012, the Smith family purchases a new house that was built in 2012.
b. In 2012, the Jones family purchases a house that was built in 2001.
c. In 2012, a construction company purchases windows to put in the new Smith family home that was built in 2012.
d. In 2012, Mr. Jones paints all of the rooms of the Jones family house purchased in 2009, using paint and supplies purchased in 2012.
e. In 2012, Mr. Smith uses an online brokerage service to purchases shares of stock in a construction company.

ANSWER: a. GDP in 2012 increases by the purchase price of the house, which is a newly produced good.
b. GDP in 2012 does not change because the house is not a newly produced good, since it was built in 2001. Transactions involving used goods are not included in GDP.
c. GDP in 2012 does not change directly because the windows are intermediate goods, not final goods. The value of intermediate goods is not included in GDP to avoid double counting. The value of the windows is implicitly included in the price of the house.
d. GDP in 2012 would change by the purchase price of the paint and supplies but not by the implicit value of the painting services provided by Mr. Jones because home production is not included in GDP.
e. GDP in 2012 would increase by the charge for using the online brokerage service but not by the amount of stock purchase because financial transactions do not represent the production of final goods and services and are not included in GDP.

100. Explain which expenditure category of gross domestic product (GDP) changes and the direction of the change that results for each transaction described.
a. A domestic business purchases a domestically produced computer to use in a business office.
b. A domestic business produces a computer that is sold to a foreign company.
c. The federal government purchases a domestically produced computer to use in a courthouse.
d. A domestic household purchases a domestically produced computer to use in a home.
e. A domestic household purchases a computer produced in a foreign country to use in a home.

Chapter 2

ANSWER: a. Investment spending increases by the price of the computer.
b. Exports (and net exports) increase by the price of the computer.
c. Government spending increases by the price of the computer.
d. Consumption spending increases by the price of the computer.
e. Consumption spending increases by the price of the computer, but imports also increase by the price of the computer, so that net exports decrease by the price of the computer, and there will be no net change in GDP.

101. Sam wants a loan from Dean. While discussing the interest, Dean told Sam that he will give him two options. Which one should Sam choose and why? The options are:
a. Sam will pay the nominal interest of 8 percent per annum.
b. Sam will pay real interest of 4 percent per annum.

ANSWER: Remember that Nominal Interest = Real Interest + Inflation. The answer actually depends upon the inflation rate. If the inflation rate is less than 4 percent, Sam should choose option (b). If the inflation rate is more than 4 percent, then option (a) is a more favorable choice for Sam. If inflation is 4 percent, Sam can go with either of the options as they will yield the same result.

102. "Gross domestic product (GDP) deflator is a better price level indicator than consumer price index (CPI)." Give reasons both supporting and opposing this statement.

ANSWER: The advantage of using a GDP deflator is that it is calculated using all goods and services produced, including those bought only by firms and the government as well as consumers, and allows a changing basket of goods. This allows it to take into account consumers' ability to substitute less expensive goods for more expensive ones. The CPI is calculated using a fixed basket of goods bought only by consumers and does not take into account substitutions, so it tends to overstate the cost of living for consumers. However, the GDP deflator does not include imported goods, which do impact the CPI. It also doesn't count for any changes in consumer welfare that may result from substituting goods, and it tends to understate the cost of living for consumers.

103. Is real gross domestic product (GDP) a better measure of economic well-being of a country than nominal GDP? Give an explanation for your answer.

ANSWER: Yes. Nominal GDP is the current price multiplied by the quantity of all the goods and services produced in a country. Real GDP actually measures the total output (that is, the quantity), not the price. A growth in nominal GDP can be due to an increase in quantity or price or both. Real GDP keeps price constant using a base year, so it provides a clearer picture of economic well-being.

104. In 2015, John buys a factory built in 2009 and constructs a new storage house within the premises. The transaction of buying the factory is not counted in the gross domestic product (GDP), but the construction of the storage house in the same factory is counted in GDP. Why?

ANSWER: The factory was built in the year 2009, so it was already counted in that year's GDP. The storage house was a new addition in the year 2015, so only it will be considered in the current year's GDP, and not the whole factory.

105. Cass was paid $500 in Social Security from the government. Though it was an expenditure made by the government, it is not included in the G component of gross domestic product (GDP). Explain why.

ANSWER: Even though the government paid Cass, it did not receive any good or service from Cass in return. This is a transfer

payment (a reallocation of existing income). This payment will therefore not be included in the G component of GDP.

106. Bob bought $5,000 worth of Adobe Systems stock. This transaction was brokered by John, who received $50 for his help. I think the $5,000 should be included in gross domestic product (GDP), and the $50 should not be included in GDP. State whether I am right or wrong and provide an explanation for your answer.

ANSWER: You are wrong. The buying of shares does not contribute anything new to the economy: it is just transferring partial ownership from Adobe to Bob, so it will not be included in GDP. Help provided by John was actually a service, which added to the total output of the economy, and so $50 will be added to the GDP.

107. Economic statistics are not perfect. Explain at least one way in which each of these statistics as currently calculated in the United States fails to completely or accurately measure the corresponding economic concept (in parentheses):

a. real gross domestic product (GDP) per person (economic well-being)

b. consumer price index (CPI) (cost of living)

c. unemployment rate (involuntary unemployment)

ANSWER: a. The official measure of GDP does not include measurements of leisure time available, non-market production, production in the underground economy, the distribution of income, or production externalities (e.g., pollution).

b. The consumer price index (CPI) does not allow substitution away from products with rising prices and has difficulty distinguishing between price changes and quality changes in products included in the index.

c. The official unemployment rate does not take into account discouraged workers, part-time workers who desire full-time employment, and workers employed in jobs not matching their skill level, such as taxi drivers with PhDs in physics.

108. "I like eating mangoes daily, but when their price rises, I switch to papayas." Does this statement support the fact that consumer price index (CPI) overstates inflation? (Assume that mangoes are included in the goods basket used to calculate the CPI, but papayas are not included.)

ANSWER: While calculating CPI, a fixed basket of goods and services is used. But as the statement shows, it is quite possible that when prices rise, people may switch to substitutes that are not accounted for in CPI. This non-adjusting attribute of the CPI overstates inflation.

109. One senator criticizes the government for making an inadequate effort to stimulate the economy based on data from the U.S. Bureau of Labor Statistics (BLS) establishment survey which shows that the number of jobs in the economy has fallen. Another senator counters that the number of employed workers in the economy has increased over the same period, based on the BLS household survey. Explain how both senators can be correct.

ANSWER: If the number of self-employed workers and workers employed in new start-up firms (who are included in the household survey but not in the establishment survey) has increased more rapidly than the decline in payroll jobs counted in the establishment survey, then the number of employed workers as measured in the household survey could increase while the number of payroll jobs decreases.

110. Into which of the three categories—employed, unemployed, out of the labor force—would an interviewer for the Current Population Survey place each of these people? Explain.

a. Jennifer Temple is working as a second-grade schoolteacher.

Chapter 2

b. Frank Peabody is attending college full-time to earn a degree in elementary education.
c. Martin Hampton is working as a high school social science teacher but is at home sick with the flu.
d. Kyle Brown does not currently have a job. He wants to be an elementary-school teacher. He has the appropriate degree. He has not looked for a position in the past month because he doesn't believe schools are currently hiring.
e. Brenda Dewey does not currently have a job. She has sent her resume to several school districts in the past week in the hope of finding a teaching position.

ANSWER: a. Employed. She is working as a full-time employee.
b. Out of the labor force. Full-time students are not counted in the labor force.
c. Employed. He is out sick but still an employee of the school.
d. Out of the labor force. Discouraged workers are not counted in the labor force.
e. Unemployed. She is actively looking for a job.

111. City A has a total population of 10 million, of which 70 percent are adults. Assume that 20 percent of the adult population is not looking for a job and 60 percent of the remaining adult population is employed. Compute the following:
a. Labor-force participation rate
b. Unemployment rate

ANSWER: Adult Population = (10)(70))/100 = 7 million
Labor force = (7,000,000)(100−20))/100 = 5,600,000
Labor-force participation rate = (5,600,000)(100))/7,000,000 = 80 percent
Unemployed population = ((100−60)(5,600,000))/100 = 2,240,000
Unemployment rate = ((2,240,000)(100))/5,600,000 = 40 percent