Chapter 4
Measuring GDP and Economic Growth

1 Gross Domestic Product

1) Gross domestic product is the total _______ produced within a country in a given time period.
   A) market value of all final and intermediate goods and services
   B) market value of all goods and services
   C) amount of final and intermediate goods and services
   D) market value of all final goods and services

Answer: D
Topic: GDP
Skill: Recognition
Question history: Previous edition, Chapter 4
AACS B: Reflective Thinking

2) Gross domestic product
   A) includes all the goods and none of the services produced in an economy in a given time period.
   B) measures the value of the aggregate production of goods and services in a country during a given time period.
   C) measures the value of labor payments generated in an economy in a given time period.
   D) is generally less than federal expenditure in any time period.

Answer: B
Topic: GDP
Skill: Recognition
Question history: Previous edition, Chapter 4
AACS B: Reflective Thinking

3) Gross domestic product is a measure of the total value of all
   A) sales in an economy over a period of time.
   B) consumer income in an economy over a period of time.
   C) capital accumulation in an economy over a period of time.
   D) final goods and services produced in an economy over a period of time.

Answer: D
Topic: GDP
Skill: Recognition
Question history: Previous edition, Chapter 4
AACS B: Reflective Thinking
4) Gross domestic product (GDP) is the ________ in a given time period.
   A) value of personal consumption expenditures, gross private domestic investment, and federal government expenditures
   B) sum of wage and salary compensation of employees and corporate profits
   C) value of all final and intermediate goods and services produced by the economy excluding those goods exported to foreign nations
   D) market value of final goods and services produced by the economy

Answer: D

Topic: GDP
Skill: Recognition
Question history: Previous edition, Chapter 4
AACSB: Reflective Thinking

5) Gross domestic product (GDP) measures the
   A) number of final goods and services produced in the economy in a given time period.
   B) number of final goods and services sold in the economy in a given time period.
   C) market value of old and new final goods and services sold in the economy in a given time period.
   D) market value of final goods and services produced in the economy in a given time period.

Answer: D

Topic: GDP
Skill: Recognition
Question history: Previous edition, Chapter 4
AACSB: Reflective Thinking

6) GDP is defined as the market value of all ________ in a given time period.
   A) final goods produced in a country
   B) final goods and services produced by citizens of a particular country regardless of where in the world they are located
   C) final goods and services produced in a country by only the citizens of the country
   D) final goods and services produced in a country

Answer: D

Topic: GDP
Skill: Recognition
Question history: Previous edition, Chapter 4
AACSB: Reflective Thinking

7) In the definition of GDP, "market value" refers to
   A) valuing production in production units.
   B) not counting intermediate products.
   C) valuing production according to the market price.
   D) when the production took place.

Answer: C

Topic: Market Value
Skill: Recognition
Question history: Modified 10th edition
AACSB: Reflective Thinking
8) In the United States, GDP is typically measured
   A) monthly.
   B) quarterly.
   C) daily.
   D) weekly.
Answer: B
Topic: Time Period
Skill: Recognition
Question history: Previous edition, Chapter 4
AACSB: Reflective Thinking

9) If Nike, an American corporation, produces sneakers in Thailand this would
   A) count as part of U.S. GDP since it is a U.S. corporation.
   B) count for both Thailand’s GDP and U.S. GDP.
   C) add to Thailand’s GDP but not to U.S. GDP.
   D) add to neither U.S. GDP nor Thailand’s GDP.
Answer: C
Topic: Production
Skill: Recognition
Question history: Previous edition, Chapter 4
AACSB: Reflective Thinking

10) If Frito Lay, an American snack company, opens a new manufacturing facility in Mexico and
produces snacks which are distributed in South America, then Mexico’s GDP _______ and U.S.
GDP _______.
   A) increases; does not change
   B) does not change; increases
   C) increases; decreases
   D) increases; increases
Answer: A
Topic: Production
Skill: Recognition
Question history: New 10th edition
AACSB: Reflective Thinking

11) The word “final” in the definition of GDP refers to
   A) not counting intermediate goods or services.
   B) the time period when production took place.
   C) valuing production at market prices.
   D) counting the intermediate goods and services used to produce GDP.
Answer: A
Topic: Final Good
Skill: Recognition
Question history: Previous edition, Chapter 4
AACSB: Reflective Thinking
12) A loaf of bread purchased by one of your instructors would be best described as
   A) an intermediate good.
   B) a financial asset.
   C) a used good.
   D) a final good.
   Answer: D
   Topic: Final Good
   Skill: Recognition
   Question history: Previous edition, Chapter 4
   AACSB: Reflective Thinking

13) Which of the following is a final good?
   A) the memory chips in your new smart phone
   B) a share of IBM stock
   C) flour purchased at the store to bake cookies
   D) flour used by the bakery to bake cookies
   Answer: C
   Topic: Final Good
   Skill: Recognition
   Question history: New 10th edition
   AACSB: Reflective Thinking

14) In 2011, Ozzie purchased a 2008 Ford Escort from his neighbor for his son, purchased a 2007 "one owner" Camry from Larchmont Toyota for his wife, bought a 2011 new Ford for himself, and sold his 2000 Dodge Caravan to his teenage nephew. Which, if any, of these transactions will be included in GDP in 2011?
   A) all four transactions
   B) all three purchases but not the sale
   C) the purchase of the Ford and the Caravan
   D) only the purchase of the Ford
   Answer: D
   Topic: Final Good
   Skill: Conceptual
   Question history: Modified 10th edition
   AACSB: Reflective Thinking

15) Which of the following expenditures associated with the production of a new high-performance SUV will be directly included in GDP?
   A) the sale of bonds to finance the construction of the assembly plant
   B) the purchase of used welding robots to assemble to vehicles
   C) the purchase of new tires to be installed on the new vehicles
   D) the purchase of new machine tools to manufacture the engines
   Answer: D
   Topic: Final Good
   Skill: Conceptual
   Question history: Previous edition, Chapter 4
   AACSB: Reflective Thinking
16) Intermediate goods are excluded from GDP because
   A) their inclusion would involve double counting.
   B) they represent goods that have never been purchased so they cannot be counted.
   C) their inclusion would understate GDP
   D) the premise of the question is incorrect because intermediate goods are directly included in calculating GDP.

Answer: A

17) A ton of coal purchased by your local utility to burn to make electricity would be best described as
   A) an intermediate good.
   B) a financial asset.
   C) a used good.
   D) a final product.

Answer: A

18) Which of the following expenditures is for an intermediate good?
   A) The government buys new tires for its military vehicles.
   B) A U.S. tire firm sells new tires to Canada.
   C) General Motors buys new tires to put on the cars it’s building.
   D) You buy new tires for your used car.

Answer: C

19) GDP does not directly include intermediate goods because
   A) intermediate goods are not valuable.
   B) intermediate goods are not useful to consumers.
   C) that would count the intermediate goods twice.
   D) that would understate the true size of GDP.

Answer: C
20) The calculation of the final goods and services sold in an economy would NOT include
   A) the purchase of a lawnmower by a household.
   B) General Motors’ purchases of tires for new automobiles.
   C) Ford Motor Company’s purchase of a new industrial robot to be used to produce cars.
   D) the purchase of a service by a household.

Answer: B

Topic: Intermediate Goods and Services
Skill: Conceptual
Question history: Previous edition, Chapter 4
AACSB: Reflective Thinking

21) In computing GDP, it is essential to
   A) avoid double counting.
   B) include government transfer payments.
   C) include government tax revenues.
   D) count all intermediate products directly as they are produced.

Answer: A

Topic: Intermediate Goods and Services
Skill: Conceptual
Question history: Previous edition, Chapter 4
AACSB: Reflective Thinking

22) Double counting (counting the same thing twice) in GDP accounting is avoided by not including
   A) net exports.
   B) intermediate goods.
   C) illegal activities.
   D) depreciation.

Answer: B

Topic: Intermediate Goods and Services
Skill: Conceptual
Question history: Previous edition, Chapter 4
AACSB: Reflective Thinking

23) GDP counts only final goods and services because this
   A) method avoids including any goods that are produced this year and sold next year.
   B) method avoids double counting of goods going through several stages of production.
   C) amount can be more easily determined in the marketplace.
   D) method avoids understating the value of GDP produced during a given year.

Answer: B

Topic: Final Goods and Intermediate Goods
Skill: Recognition
Question history: Previous edition, Chapter 4
AACSB: Reflective Thinking
24) The circular flow model shows that consumer goods and services produced by business firms are sold in the
   A) goods market.
   B) factor market.
   C) labor market.
   D) financial market.
   Answer: A
   Topic: Circular Flow
   Skill: Recognition
   Question history: Previous edition, Chapter 4
   AACSB: Reflective Thinking

25) The factor market can best be described as where
   A) households buy goods and services.
   B) firms buy goods and services.
   C) firms buy the services of labor, land and capital.
   D) governments sell goods and services.
   Answer: C
   Topic: Circular Flow
   Skill: Recognition
   Question history: Previous edition, Chapter 4
   AACSB: Reflective Thinking

26) In the circular flow of income
   A) households demand goods and services that are supplied by firms, and the firms demand factors that are supplied by intermediate firms.
   B) households demand goods and services that are supplied by firms, while supplying factors that are demanded by firms.
   C) households sell goods and services while firms sell factors.
   D) households buy goods and services while firms sell goods and services. Firms obtain labor from households, capital from government, and raw materials from other firms.
   Answer: B
   Topic: Circular Flow
   Skill: Recognition
   Question history: Previous edition, Chapter 4
   AACSB: Reflective Thinking

27) The circular flow shows that the household sector earns its income by
   A) selling factors of production.
   B) buying factors of production.
   C) selling goods and services.
   D) selling financial assets.
   Answer: A
   Topic: Circular Flow
   Skill: Recognition
   Question history: Previous edition, Chapter 4
   AACSB: Reflective Thinking
28) The circular flow of income shows that
   A) households transact only in the goods market.
   B) governments purchase goods and services.
   C) firms generally are the demanders in the goods markets and suppliers in the factor markets.
   D) None of the above answers is correct.
Answer: B

Topic: Circular Flow
Skill: Recognition
Question history: Previous edition, Chapter 4
AACSB: Reflective Thinking

29) Which of the following is true regarding the circular flow diagram?
I. "Aggregate income" is the flow of income earned by firms.
II. Retained earnings are considered income earned by firms rather than part of households' income.
III. The government, households, and firms all have transactions in the goods market.
   A) I only
   B) I and II
   C) I and III
   D) III only
Answer: D

Topic: Circular Flow
Skill: Conceptual
Question history: Modified 10th edition
AACSB: Reflective Thinking

30) If we compare the four sources of spending in the economy we see that
   A) household consumption is the smallest.
   B) government expenditure is the largest.
   C) business investment is the largest.
   D) household consumption is the largest.
Answer: D

Topic: Circular Flow
Skill: Recognition
Question history: Previous edition, Chapter 4
AACSB: Reflective Thinking

31) Compared to the other sources of spending, net exports is
   A) large and negative.
   B) small and negative.
   C) large and positive.
   D) small and positive.
Answer: B

Topic: Circular Flow
Skill: Recognition
Question history: Previous edition, Chapter 4
AACSB: Reflective Thinking
32) The circular flow diagram shows that
A) the flow of payments to the factors used to produce goods and services exceeds the flow of payments for final goods and services.
B) goods and factor markets are independent.
C) the total amount of income generated by the economy equals the total purchases of final goods and services.
D) consumption expenditure equals saving.
Answer: C
Topic: Circular Flow
Skill: Recognition
Question history: Previous edition, Chapter 4
AACS: Reflective Thinking

33) The circular flow diagram shows
A) how nominal GDP is distinct from real GDP.
B) how the prices of factors are determined.
C) the effects of inflation in a simple economy.
D) the flows between different sectors of the economy.
Answer: D
Topic: Circular Flows
Skill: Conceptual
Question history: Previous edition, Chapter 4
AACS: Reflective Thinking

34) The circular flow diagram indicates that
A) households sell the services of factors of production to firms.
B) firms buy the services of factors of production from the government.
C) households sell goods and services to the government.
D) firms buy goods and services from households.
Answer: A
Topic: Circular Flows
Skill: Conceptual
Question history: Previous edition, Chapter 4
AACS: Reflective Thinking

35) In the circular flow model of an economy, households
A) receive income from buyers of goods and services.
B) receive income from the sale of factors in the goods markets.
C) pay firms for the use of their factors.
D) receive income from producers for the use of factors in the factor markets.
Answer: D
Topic: Circular Flows
Skill: Conceptual
Question history: Modified 10th edition
AACS: Reflective Thinking
36) In the circular flow diagram, aggregate expenditure includes the sum of
   A) saving and investment.
   B) consumption and investment.
   C) consumption, investment, and saving.
   D) income and saving.
   Answer: B
   Topic: Circular Flow, Aggregate Expenditures
   Skill: Conceptual
   Question history: Previous edition, Chapter 4
   AACSB: Reflective Thinking

37) In the circular flow of economic activity
   A) aggregate expenditure measures the dollar value of purchases of factors.
   B) aggregate expenditure measures the dollar value of purchases of final goods and services.
   C) aggregate income measures the dollar value of labor resources only.
   D) aggregate expenditure is measured as it moves through the financial markets.
   Answer: B
   Topic: Circular Flow, Aggregate Expenditures
   Skill: Conceptual
   Question history: Previous edition, Chapter 4
   AACSB: Reflective Thinking

38) In the circular flow diagram, aggregate expenditure includes
   A) consumption expenditure, saving, investment and government expenditure
   B) consumption expenditure, saving, investment and net exports
   C) consumption expenditure, investment, government expenditure and net exports
   D) consumption expenditure, saving, government expenditure and net exports
   Answer: C
   Topic: Circular Flow, Aggregate Expenditures
   Skill: Recognition
   Question history: New 10th edition
   AACSB: Reflective Thinking
39) In the above figure, flow B represents ________.
   A) household purchases of goods and services
   B) household borrowing
   C) household income
   D) firms’ payments for labor services

   Answer: A

   Topic: Circular Flow
   Skill: Analytical
   Question history: Previous edition, Chapter 4
   AACSB: Reflective Thinking

40) In the above figure, flow B represents households’ ________.
   A) income
   B) consumption expenditures
   C) saving
   D) investment

   Answer: B

   Topic: Circular Flow
   Skill: Analytical
   Question history: Previous edition, Chapter 4
   AACSB: Reflective Thinking
41) In the above figure, household income is shown by flow
   A) A.  
   B) B.  
   C) C.  
   D) F.  
   Answer: A  
   Topic: Circular Flow  
   Skill: Analytical  
   Question history: Previous edition, Chapter 4  
   AACSB: Reflective Thinking  

42) In the above figure, consumption expenditure is shown by flow
   A) A.  
   B) B.  
   C) C.  
   D) F.  
   Answer: B  
   Topic: Circular Flow  
   Skill: Analytical  
   Question history: Previous edition, Chapter 4  
   AACSB: Reflective Thinking  

43) Which of the following are equal to one another?
   I. aggregate production  
   II. aggregate expenditure  
   III. aggregate income
   A) I equals II, but not III.  
   B) I equals III, but not II.  
   C) II equals III, but not I.  
   D) I equals II equals III.  
   Answer: D  
   Topic: Expenditure Equals Income  
   Skill: Conceptual  
   Question history: Previous edition, Chapter 4  
   AACSB: Reflective Thinking  

44) Choose the best statement.  
   A) GDP equals aggregate expenditure and equals aggregate income.  
   B) An increase in government purchases increases aggregate expenditure but does not change GDP.  
   C) An increase in compensation of employees increases aggregate income but does not change GDP.  
   D) GDP always equals aggregate expenditure and sometimes equals aggregate income.  
   Answer: A  
   Topic: Expenditure Equals Income  
   Skill: Conceptual  
   Question history: Previous edition, Chapter 4  
   AACSB: Reflective Thinking
45) According to the circular flow diagram, the dollar value of a nation's output is equal to
   A) profits.
   B) total income.
   C) net income minus taxes.
   D) wages.
   
   Answer: B
   Topic: Expenditure Equals Income
   Skill: Recognition
   Question history: Previous edition, Chapter 4
   AACSB: Reflective Thinking

46) Total output and total income in the circular flow model
   A) are measures of the economy’s level of savings.
   B) include only intermediate goods.
   C) are equal to each other.
   D) are related because national income is less than national product.
   
   Answer: C
   Topic: Expenditure Equals Income
   Skill: Recognition
   Question history: Previous edition, Chapter 4
   AACSB: Reflective Thinking

47) The circular flow shows that
   A) aggregate production equals aggregate expenditure.
   B) aggregate expenditure is less than aggregate income.
   C) GDP equals aggregate income.
   D) Both answers A and C are correct.
   
   Answer: D
   Topic: Expenditure Equals Income
   Skill: Conceptual
   Question history: Previous edition, Chapter 4
   AACSB: Reflective Thinking

48) Comparing aggregate expenditure and aggregate incomes shows that
   A) aggregate expenditure is usually greater than aggregate income.
   B) aggregate income is usually greater than aggregate expenditure.
   C) they are equal.
   D) aggregate income can not equal aggregate expenditure if we have any savings.
   
   Answer: C
   Topic: Expenditure Equals Income
   Skill: Conceptual
   Question history: Previous edition, Chapter 4
   AACSB: Reflective Thinking
49) Gross domestic product (GDP) is
A) the value of all final goods and services produced in a country during a year.
B) the sum of consumption expenditure, investment, government expenditure on goods and services, and net exports.
C) the sum of compensation of employees, proprietors’ income, net interest, rental income, corporate profits, depreciation, and indirect business taxes minus subsidies.
D) all of the above
Answer: D

Topic: Expenditure Equals Income
Skill: Recognition
Question history: Previous edition, Chapter 4
AACS B: Reflective Thinking

50) Gross domestic product can be calculated
A) either by valuing the nation’s output of goods and services or by valuing the income generated in the production process.
B) by adding up the personal consumption of all members of the society.
C) by adding up the value of all intermediate goods used in the economy.
D) by adding up the income tax returns of all members of the society.
Answer: A

Topic: Expenditure Equals Income
Skill: Recognition
Question history: Previous edition, Chapter 4
AACS B: Reflective Thinking

51) Gross domestic product is the
A) value of the final goods and services produced in a country during a specific time.
B) total amount that buyers spent on the final goods and services produced in a country during a specific time.
C) total amount of income earned in producing the final goods and services in a country during a specific time.
D) All of the above answers are correct.
Answer: D

Topic: Expenditure Equals Income
Skill: Recognition
Question history: Previous edition, Chapter 4
AACS B: Reflective Thinking

52) Which of the following is correct?
A) Aggregate expenditure equals GDP but is less than aggregate income.
B) Aggregate income is greater than GDP but equal to aggregate expenditure.
C) Aggregate income is greater than aggregate expenditure but equal to GDP.
D) Aggregate income, aggregate expenditure and GDP are all equal.
Answer: D

Topic: Expenditure Equals Income
Skill: Recognition
Question history: Previous edition, Chapter 4
AACS B: Reflective Thinking
53) GDP equals
   A) C+S+G+(X-M)  
   B) C+I+G+(X+M)  
   C) C+I+G+(X-M)  
   D) C+S+G+(X-M)

Answer: C

Topic: Expenditure Equals Income
Skill: Recognition
Question history: New 10th edition
AACSB: Reflective Thinking

54) Depreciation is defined as the
   A) decrease in the stock of capital due to wear and tear.
   B) increase in the stock of capital due to investment by firms.
   C) increase in the stock of capital due to wear and tear.
   D) decrease in the stock of capital due to investment by firms.

Answer: A

Topic: Depreciation
Skill: Recognition
Question history: Previous edition, Chapter 4
AACSB: Reflective Thinking

55) Suppose Mail Boxes Etc. buys a new copier for its store for $1000. A year later, when the firm wants to upgrade to a new copier, it finds that the old copier is only worth $750. Over the year the copier was used, _______ has occurred.
   A) replacement investment
   B) gross investment
   C) depreciation
   D) net investment

Answer: C

Topic: Depreciation
Skill: Conceptual
Question history: Previous edition, Chapter 4
AACSB: Reflective Thinking

56) Net investment equals
   A) capital stock minus depreciation.
   B) gross investment minus depreciation.
   C) the total quantity of plant, equipment and buildings.
   D) gross investment/depreciation.

Answer: B

Topic: Net Investment and Gross Investment
Skill: Recognition
Question history: Previous edition, Chapter 4
AACSB: Reflective Thinking
57) Which of the following relationships is correct?
   A) Net Investment = Gross Investment + Depreciation
   B) Consumption expenditure = Net Investment - Depreciation
   C) Gross Investment = Net Investment + Depreciation
   D) Depreciation = Gross Investment - Consumption expenditure

Answer: C

Topic: Net Investment and Gross Investment
Skill: Recognition
Question history: Modified 10th edition
AACSB: Reflective Thinking

58) Gross investment equals net investment plus
   A) capital.
   B) capital gains.
   C) depreciation.
   D) dividends paid to the owners of the company.

Answer: C

Topic: Net Investment and Gross Investment
Skill: Recognition
Question history: Previous edition, Chapter 4
AACSB: Reflective Thinking

59) Gross investment is equal to
   A) depreciation minus net investment.
   B) net investment plus capital stock.
   C) depreciation plus net investment.
   D) net investment minus capital stock.

Answer: C

Topic: Net Investment and Gross Investment
Skill: Recognition
Question history: Previous edition, Chapter 4
AACSB: Reflective Thinking

60) Gross investment equals
   A) net investment – depreciation + change in inventories.
   B) net investment + depreciation.
   C) net investment + change in inventories.
   D) depreciation + change in inventories.

Answer: B

Topic: Net Investment and Gross Investment
Skill: Recognition
Question history: Previous edition, Chapter 4
AACSB: Reflective Thinking
61) ________ is gross investment minus ________.
   A) The capital stock; net investment
   B) The capital stock; depreciation
   C) Depreciation; replacement investment
   D) Net investment; depreciation

   Answer: D

62) The difference between gross investment and net investment is
   A) the capital stock.
   B) depreciation.
   C) the real interest rate.
   D) equal to saving.

   Answer: B

63) If depreciation is less than gross investment, then net investment is
   A) positive.
   B) negative.
   C) zero.
   D) This situation could never occur because it is impossible for depreciation to be less than gross investment.

   Answer: A

64) Net investment
   A) equals gross investment plus depreciation.
   B) is the only measure of investment used to calculate GDP.
   C) equals gross investment minus depreciation.
   D) is equivalent to the existing capital stock in the economy.

   Answer: C
65) Net investment equals
   A) gross investment + depreciation.
   B) depreciation + addition to inventories.
   C) savings – depreciation.
   D) gross investment – depreciation.
Answer: D

Topic: Net Investment and Gross Investment
Skill: Recognition
Question history: Previous edition, Chapter 4
AACS: Reflective Thinking

66) Net investment is the
   A) total amount of gross investment minus depreciation.
   B) value of software and other network related products.
   C) profit or loss in the stock market.
   D) value of the depreciated capital multiplied by the changes in the price level.
Answer: A

Topic: Net Investment and Gross Investment
Skill: Recognition
Question history: Previous edition, Chapter 4
AACS: Reflective Thinking

67) Which of the following is NOT a final good?
   A) a new computer sold to an NYU student
   B) a new car sold to Avis for use in their fleet of rental cars
   C) a purse sold to a foreign visitor
   D) a hot dog sold to a spectator at a Chicago Bears football game
Answer: B

Topic: Study Guide Question, GDP
Skill: Conceptual
Question history: Previous edition, Chapter 4
AACS: Reflective Thinking

68) GDP equals
   A) aggregate expenditure.
   B) aggregate income.
   C) the value of the aggregate production in a country during a given time period.
   D) all of the above
Answer: D

Topic: Study Guide Question, Expenditure Equals Income
Skill: Conceptual
Question history: Previous edition, Chapter 4
AACS: Reflective Thinking
2 Measuring U.S. GDP

1) Two methods of measuring GDP are
   A) the income approach and the expenditure approach.
   B) the income approach and the receipts approach.
   C) the goods approach and the services approach.
   D) the saving approach and the investment approach.

   Answer: A

   Topic: Measuring U.S. GDP
   Skill: Recognition
   Question history: Previous edition, Chapter 4
   AACSB: Reflective Thinking

2) GDP can be computed as the sum of
   A) all sales that have taken place in an economy over a period of time.
   B) the total expenditures of consumers and business over a period of time.
   C) the total expenditures of consumption, investment, and government expenditure on goods
      and services over a period of time.
   D) the total expenditures of consumption, investment, government expenditure on goods and
      services, and net exports over a period of time.

   Answer: D

   Topic: Expenditure Approach
   Skill: Recognition
   Question history: Previous edition, Chapter 4
   AACSB: Reflective Thinking

3) GDP using the expenditure approach equals the sum of personal consumption expenditures
   plus
   A) gross private investment.
   B) gross private investment plus government expenditure on goods and services.
   C) gross private investment plus government expenditure on goods and services minus
      imports of goods and services.
   D) gross private investment plus government expenditure on goods and services plus net
      exports of goods and services.

   Answer: D

   Topic: Expenditure Approach
   Skill: Recognition
   Question history: Previous edition, Chapter 4
   AACSB: Reflective Thinking
4) The expenditure approach measures GDP by adding
   A) compensation of employees, rental income, corporate profits, net interest, and proprietors' income.
   B) compensation of employees, rental income, corporate profits, net interest, proprietors’ income, subsidies paid by the government, indirect taxes paid, and depreciation.
   C) compensation of employees, rental income, corporate profits, net interest, proprietors’ income, indirect taxes paid, and depreciation and subtracting subsidies paid by the government.
   D) consumption expenditure, gross private domestic investment, net exports of goods and services, and government expenditure on goods and services.

Answer: D
Topic: Expenditure Approach
Skill: Recognition
Question history: Previous edition, Chapter 4
AACSB: Reflective Thinking

5) The four categories of expenditure used by the expenditure approach method to calculate GDP are
   A) consumption expenditure, taxes, saving and investment.
   B) consumption expenditure, investment, net imports and saving.
   C) saving, taxes, government expenditure and investment.
   D) consumption expenditure, investment, government expenditure and net exports.

Answer: D
Topic: Expenditure Approach
Skill: Recognition
Question history: Previous edition, Chapter 4
AACSB: Reflective Thinking

6) In the equation, GDP = C + I + G + X – M, G refers to
   A) federal government expenditures plus all transfer payments.
   B) local, state, and federal government spending for all purposes.
   C) the taxes and expenditures of all government units.
   D) local, state, and federal government expenditure on goods and services, but does not include transfer payments.

Answer: D
Topic: Expenditure Approach
Skill: Recognition
Question history: Previous edition, Chapter 4
AACSB: Reflective Thinking

7) The components of the expenditure approach to measuring GDP include all of the following EXCEPT
   A) net exports.
   B) government expenditure on goods and services.
   C) investment.
   D) the implicit payments for unpaid household work.

Answer: D
Topic: Expenditure Approach
Skill: Recognition
Question history: Previous edition, Chapter 4
AACSB: Reflective Thinking
8) All of the following are components of the expenditure approach to measuring GDP EXCEPT
A) Shaniq's purchase of a meal at the Olive Garden in Atlanta.
B) a Senator from Iowa being paid the monthly salary.
C) the army buying new M1 Abrams tanks.
D) Ford Motor Company buying new Dell computers for use in its marketing department in Dearborn, Michigan.
Answer: B

9) The largest component of GDP in the expenditure approach is
A) personal consumption expenditures.
B) gross private domestic investment.
C) government expenditure on goods and services.
D) net exports.
Answer: A

10) Of the following, the largest component of GDP is
A) personal consumption expenditure.
B) gross private domestic investment.
C) government expenditure on goods and services.
D) net exports of goods and services.
Answer: A

11) Which of the following is NOT part of the expenditure approach to measuring GDP?
A) gross private domestic investment
B) net exports of goods and services
C) net interest
D) personal consumption expenditures
Answer: C
12) To measure GDP using the expenditure approach you must collect data on
   A) inflation.
   B) exports.
   C) wages.
   D) saving.
Answer: B
Topic: Expenditure Approach
Skill: Recognition
Question history: Previous edition, Chapter 4
AACSB: Reflective Thinking

13) Aggregate expenditures include all of the following **EXCEPT**
   A) consumption of food.
   B) purchases of intermediate goods.
   C) purchases of a piece of capital equipment.
   D) purchases of guns by the government.
Answer: B
Topic: Expenditure Approach
Skill: Recognition
Question history: Previous edition, Chapter 4
AACSB: Reflective Thinking

14) Gross Domestic Product is equal to the sum of consumption expenditure, investment, net
   exports, and ________.
   A) government expenditures on goods and services
   B) saving
   C) profits
   D) net taxes
Answer: A
Topic: Expenditure Approach
Skill: Recognition
Question history: Previous edition, Chapter 4
AACSB: Reflective Thinking

15) Which of the following items is not a component of the expenditure approach to measuring U.S.
   GDP?
   A) purchases of food made by families
   B) social security payments made by the government
   C) purchases of U.S.-made movies by Europeans
   D) purchases of new homes made by families
Answer: B
Topic: Expenditure Approach
Skill: Recognition
Question history: Previous edition, Chapter 4
AACSB: Reflective Thinking
16) In the expenditure approach to GDP, the largest component is
   A) government expenditure on goods and services.
   B) personal consumption expenditures.
   C) gross private domestic investment.
   D) net exports.

   Answer: B

   Topic: Expenditure Approach
   Skill: Conceptual
   Question history: Previous edition, Chapter 4
   AACSB: Reflective Thinking

17) Let C represent consumption expenditure, S saving, I gross private domestic investment, G government expenditure on goods and services, and X - M net exports of goods and services.

   Then GDP equals
   A) C + S + G + X - M.
   B) C + S + G - X - M.
   C) C + I + G + X - M.
   D) C + I + G - X - M.

   Answer: C

   Topic: Expenditure Approach
   Skill: Conceptual
   Question history: Previous edition, Chapter 4
   AACSB: Reflective Thinking

18) Consumption expenditure is the payment by households for consumption of
   A) goods but not services.
   B) services but not goods.
   C) goods and services.
   D) services and for saving.

   Answer: C

   Topic: Expenditure Approach, Consumption Expenditures
   Skill: Recognition
   Question history: Previous edition, Chapter 4
   AACSB: Reflective Thinking

19) The largest component of GDP is
   A) gross private domestic investment.
   B) personal consumption expenditures.
   C) net exports of goods and services.
   D) government expenditure on goods and services.

   Answer: B

   Topic: Expenditure Approach, Consumption Expenditures
   Skill: Recognition
   Question history: Previous edition, Chapter 4
   AACSB: Reflective Thinking
20) Personal consumption expenditures include
   A) expenditures by households on goods and services produced only in the United States.
   B) expenditures by households on goods and services produced in the United States and the
      rest of the world.
   C) the purchase of new homes.
   D) the purchase of used goods and new goods.
Answer: B

21) Which of the following purchases is included in personal consumption expenditures when
determining gross domestic product?
   A) purchase of a new house because of the arrival of a new baby
   B) purchase of a new office building
   C) vacation expenses for a spring trip to Fort Lauderdale
   D) purchases of jeans to add to a store's inventory
Answer: C

22) Personal consumption expenditures include all of the following **EXCEPT** spending on
   A) consumer durable goods.
   B) consumer nondurable goods.
   C) consumer services.
   D) new housing.
Answer: D

23) All of the following household expenditures are included in consumption expenditure **EXCEPT**
   A) payment to a dentist for filling a tooth.
   B) purchase of corporate stock.
   C) purchase of a new purse.
   D) purchase of hair styling.
Answer: B
24) Gross private domestic investment is all purchases of newly produced business capital goods and buildings
   A) minus the change in business inventories.
   B) plus the change in business inventories plus residential construction.
   C) plus fixed investment minus inventory investment.
   D) plus purchases of capital goods produced in previous years to replace any depreciated capital goods.

   Answer: B
   Topic: Expenditure Approach, Investment
   Skill: Recognition
   Question history: Previous edition, Chapter 4
   AACSB: Reflective Thinking

25) The difference between gross investment and net investment is
   A) inflation.
   B) depreciation.
   C) initial capital.
   D) consumption.

   Answer: B
   Topic: Expenditure Approach, Investment
   Skill: Recognition
   Question history: Previous edition, Chapter 4
   AACSB: Reflective Thinking

26) Goods that are produced this year, stored in inventories, and then sold to consumers next year
   A) count in this year’s GDP.
   B) count in next year’s GDP.
   C) count in both this year’s and next year’s GDP.
   D) are not counted as a part of GDP.

   Answer: A
   Topic: Expenditure Approach, Investment
   Skill: Recognition
   Question history: Previous edition, Chapter 4
   AACSB: Reflective Thinking

27) A new 2010 Honda Civic produced in 2010 and purchased in 2011 is
   A) part of GDP in 2010.
   B) part of GDP in 2011.
   C) not part of GDP in either year because it was produced in one year and sold in another year.
   D) part of GDP in both 2010 and 2011.

   Answer: A
   Topic: Expenditure Approach, Consumption Expenditures
   Skill: Recognition
   Question history: New 10th edition
   AACSB: Reflective Thinking
28) Which of the following are examples of the gross private domestic investment component of GDP?
   I. the purchase of production machinery by IBM
   II. an increase in the finished goods inventory at Intel
   A) I only
   B) II only
   C) both I and II
   D) neither I nor II
   Answer: C
   Topic: Expenditure Approach, Investment
   Skill: Conceptual
   Question history: Previous edition, Chapter 4
   AACSB: Reflective Thinking

29) In the calculation of gross domestic product by the expenditure approach, the "investment" component is
   A) net investment.
   B) gross investment minus depreciation.
   C) gross investment plus depreciation.
   D) gross investment.
   Answer: D
   Topic: Expenditure Approach, Investment
   Skill: Conceptual
   Question history: Previous edition, Chapter 4
   AACSB: Reflective Thinking

30) An example of "investment" in computing real GDP using the expenditure approach is the purchase of
   A) a new set of tools by an auto mechanic, for use in repairing cars.
   B) 100 shares of IBM stock.
   C) a 100 year old house by a married couple.
   D) computer chips by Dell to put in their personal computers.
   Answer: A
   Topic: Expenditure Approach, Investment
   Skill: Conceptual
   Question history: Previous edition, Chapter 4
   AACSB: Reflective Thinking

31) An example of "investment" in the national income accounts is the purchase of
   A) a new van by a potter, who packs it with his wares and travels to art shows.
   B) 100 shares of Canadian stock on the New York Stock Exchange.
   C) a 100–year-old house that was just put on the protected historic sites list in the year in question.
   D) a U.S. government bond.
   Answer: A
   Topic: Expenditure Approach, Investment
   Skill: Conceptual
   Question history: Previous edition, Chapter 4
   AACSB: Reflective Thinking
32) In the national income accounts, the purchase of a new house counts as 
   A) consumption expenditure.  
   B) investment.  
   C) a transfer.  
   D) an addition to inventory.  

   Answer: B  
   *Topic: Expenditure Approach, Investment*  
   *Skill: Conceptual*  
   *Question history: Previous edition, Chapter 4*  
   *AACSB: Reflective Thinking*  

33) All of the following are included in gross private domestic investment expenditure EXCEPT a 
   A) business’s purchase of a fleet of cars.  
   B) household’s purchase of a new house.  
   C) business’s purchase of another company’s stock.  
   D) a retail store’s purchase of shoes to add to its inventory.  

   Answer: C  
   *Topic: Expenditure Approach, Investment*  
   *Skill: Conceptual*  
   *Question history: Previous edition, Chapter 4*  
   *AACSB: Reflective Thinking*  

34) In the national income accounts, government expenditure on goods and services refer to those 
   purchases made by 
   A) federal and state governments only.  
   B) the federal government only.  
   C) state and local governments only.  
   D) all levels of government.  

   Answer: D  
   *Topic: Expenditure Approach, Government Expenditure*  
   *Skill: Recognition*  
   *Question history: Previous edition, Chapter 4*  
   *AACSB: Reflective Thinking*  

35) In the national income accounts, government expenditure on goods and services exclude 
   A) transfer payments.  
   B) state and local government purchases.  
   C) local government purchases but include state government purchases.  
   D) spending on national defense.  

   Answer: A  
   *Topic: Expenditure Approach, Government Expenditure*  
   *Skill: Recognition*  
   *Question history: Previous edition, Chapter 4*  
   *AACSB: Reflective Thinking*  

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36) Which of the following is included in the government expenditure component of the expenditure approach to GDP?
   A) state government expenditure on local schools
   B) transfer payments
   C) changes in inventories
   D) taxes
Answer: A

Topic: The Expenditure Approach, Government Purchases
Skill: Recognition
Question history: Previous edition, Chapter 4
AACSB: Reflective Thinking

37) Which one of the following transactions in a particular year is included in gross domestic product for that year?
   A) Social Security payments to retirees
   B) The government pays a computer services company that assisted in the delivery of Social Security payments to retirees.
   C) A car is produced in the previous year and remains in inventory for the entire year under consideration.
   D) A stay-at-home parent performs housework that the family would otherwise have paid a maid $20,000 a year to perform.
Answer: B

Topic: The Expenditure Approach, Government Purchases
Skill: Recognition
Question history: Previous edition, Chapter 4
AACSB: Reflective Thinking

38) Which of the following is included in government expenditures when measuring GDP?
   A) Social Security payments
   B) unemployment compensation payments
   C) pension payment made to past presidents
   D) the current president’s salary
Answer: D

Topic: Expenditure Approach, Government Expenditure
Skill: Conceptual
Question history: Previous edition, Chapter 4
AACSB: Reflective Thinking

39) Transfer payments
   A) are included in the government expenditure category in gross domestic product.
   B) refer to all payments made to households by governments.
   C) refer to payments made by the government that are not made to purchase a good or service.
   D) are made by households to firms in exchange for goods and services.
Answer: C

Topic: Expenditure Approach, Government Expenditure
Skill: Recognition
Question history: Previous edition, Chapter 4
AACSB: Reflective Thinking
40) In the computation of GDP, social security payments count as
   A) transfer payments and are included in GDP.
   B) transfer payments and are not included in GDP.
   C) government expenditure on goods and services and are included in GDP.
   D) government expenditure on goods and services and are not included in GDP.
   Answer: B

41) Which of the following items is NOT part of government expenditure on goods and services in the GDP accounts?
   A) gasoline purchases for government car pools
   B) Social Security expenditures
   C) new computer hardware for use by the IRS
   D) drapes to brighten up the president’s office
   Answer: B

42) Transfer payments are not included in GDP because
   A) their market value cannot be accurately determined.
   B) they do not generate additional income.
   C) they are not purchases of goods or services.
   D) their value is included in government expenditure.
   Answer: C

43) Which of the following transfer payments is included in GDP?
   A) Social Security payments
   B) welfare payments
   C) veteran’s benefits
   D) none of the above
   Answer: D
44) Which of the following is NOT part of GDP calculated using the expenditure approach?
   A) General Motors’ purchases of new capital equipment
   B) expenditures by the federal government for national defense
   C) social security payments made to the elderly
   D) the purchase of new homes by consumers

   Answer: C
   
   Topic: The Expenditure Approach, Government Purchases
   Skill: Conceptual
   Question history: Previous edition, Chapter 4
   AACSB: Reflective Thinking

45) Transfer payments are not part of government expenditure on goods and services because transfer payments
   A) are not predictable given the nature of their appropriation and allocation.
   B) do not represent the purchase of a final good or service.
   C) are not always spent on goods produced in the U.S.
   D) The premise of the question is incorrect because transfer payments are part of government purchases of goods and services.

   Answer: B
   
   Topic: Expenditure Approach, Government Expenditure
   Skill: Conceptual
   Question history: Previous edition, Chapter 4
   AACSB: Reflective Thinking

46) Government expenditures included in the expenditure approach to GDP include _______.
   A) social security and education
   B) net exports
   C) buying a new bomber
   D) Both answers A and C are correct

   Answer: C
   
   Topic: Expenditure Approach, Government Expenditure
   Skill: Conceptual
   Question history: Previous edition, Chapter 4
   AACSB: Reflective Thinking

47) Net exports of goods and services equal the
   A) exports of goods and services divided by the imports of goods and services.
   B) exports of goods and services plus the imports of goods and services.
   C) exports of goods and services minus the imports of goods and services.
   D) imports of goods and services minus the exports of goods and services.

   Answer: C
   
   Topic: Expenditure Approach, Net Exports
   Skill: Recognition
   Question history: Previous edition, Chapter 4
   AACSB: Reflective Thinking
48) Net exports is negative if
   A) the value of exports exceeds the value of imports.
   B) the value of imports exceeds the value of exports.
   C) the tariff payments are included in the value of imported and exported items.
   D) too much production occurs in the exporting country during the year.

   Answer: B
   Topic: Expenditure Approach, Net Exports
   Skill: Recognition
   Question history: Previous edition, Chapter 4
   AACSB: Reflective Thinking

49) In 2010, net exports in the United States were
   A) zero.
   B) positive.
   C) negative.
   D) greater than personal consumption expenditures.

   Answer: C
   Topic: Expenditure Approach, Net Exports
   Skill: Recognition
   Question history: Modified 10th edition
   AACSB: Reflective Thinking

50) To calculate GDP using the expenditure approach, in part it is necessary to
   A) add imports and exports.
   B) add imports and subtract exports.
   C) add exports and subtract imports.
   D) subtract both exports and imports.

   Answer: C
   Topic: Expenditure Approach, Net Exports
   Skill: Recognition
   Question history: Previous edition, Chapter 4
   AACSB: Reflective Thinking

51) An increase in exports of goods or services with no change in imports of goods or services
   A) decreases GDP.
   B) increases GDP.
   C) may increase or decrease GDP depending on whether it is the export of goods or the export of services that increased.
   D) has no effect on GDP.

   Answer: B
   Topic: Expenditure Approach, Net Exports
   Skill: Conceptual
   Question history: Previous edition, Chapter 4
   AACSB: Reflective Thinking
52) By itself, an increase in exports
   A) increases GDP.
   B) decreases GDP.
   C) means imports decrease by the same amount.
   D) can either increase or decrease GDP, depending on whether the exports are durable or nondurable.

Answer: A

Topic: Expenditure Approach, Net Exports
Skill: Conceptual
Question history: Previous edition, Chapter 4
AACS: Reflective Thinking

53) If Ford sells 200 Explorers for a total of $400,000 to Germany, while the United States imports 100 BMWs for a total of $500,000 from Germany,
   A) U.S. GDP increases because it sells more Explorers.
   B) U.S. GDP decreases because net exports are negative.
   C) Germany’s GDP decreases.
   D) U.S. net exports is positive.

Answer: B

Topic: Expenditure Approach, Net Exports
Skill: Conceptual
Question history: Previous edition, Chapter 4
AACS: Reflective Thinking

54) An U.S. firm buys a new industrial sewing machine from a company located in France. Which of the following is true?
   I. U.S. net exports decrease.
   II. U.S. investment increases.
      A) only I
      B) only II
      C) both I and II
      D) neither I nor II

Answer: C

Topic: The Expenditure Approach, Net Exports
Skill: Conceptual
Question history: Previous edition, Chapter 4
AACS: Reflective Thinking

55) If an American firm produces goods that are sold to a German household, then
   A) German GDP increases but not U.S. GDP.
   B) U.S. GDP increases.
   C) the transaction is considered an export in the German GDP accounts.
   D) net exports in the United States will not change because an export immediately generates an offsetting import.

Answer: B

Topic: Expenditure Approach, Net Exports
Skill: Conceptual
Question history: Previous edition, Chapter 4
AACS: Reflective Thinking

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56) In the calculation of GDP by the expenditure approach, exports from the United States must be
A) subtracted because they are included in the consumption of a foreign country.
B) ignored because they are not bought by U.S. citizens.
C) subtracted if they are bought by foreign firms for investment purposes.
D) added.
Answer: D  
*Topic: Expenditure Approach, Net Exports*  
*Skill: Conceptual*  
*Question history: Previous edition, Chapter 4*  
*AACSB: Reflective Thinking*

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<thead>
<tr>
<th>Item</th>
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<tr>
<td>Personal consumption expenditure</td>
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<td>Government expenditure on goods and services</td>
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<tr>
<td>Net taxes</td>
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<td>Imports of goods and services</td>
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<tr>
<td>Exports of goods and services</td>
<td>20</td>
</tr>
</tbody>
</table>

57) Using the information in the table above, calculate the value of GDP.
   A) $185 million
   B) $145 million
   C) $195 million
   D) $140 million

Answer: D  
*Topic: Expenditure Approach*  
*Skill: Analytical*  
*Question history: Previous edition, Chapter 4*  
*AACSB: Analytical Skills*

58) Use the information in the table above to calculate the value of net exports.
   A) $10 million
   B) $0
   C) –$10 million
   D) $30 million

Answer: A  
*Topic: Expenditure Approach, Net Exports*  
*Skill: Analytical*  
*Question history: Previous edition, Chapter 4*  
*AACSB: Analytical Skills*
59) Last year in the country of Nerf imports equaled exports. Nerf’s GDP was $500 million, its consumer expenditure was $380 million, and its investment was $20 million. Nerf’s government expenditure on goods and services were _______.
   A) $100 million
   B) $900 million
   C) $500 million
   D) zero
   Answer: A

   *Topic: Expenditure Approach
   *Skill: Analytical
   *Question history: Modified 10th edition
   *AACSB: Analytical Skills

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<td>Compensation of employees</td>
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<td>Gross private domestic investment</td>
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<td>Rental income</td>
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<td>Personal consumption expenditures</td>
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<td>Net interest</td>
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<td>Net exports of goods and services</td>
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<tr>
<td>Indirect business taxes and depreciation</td>
<td>300</td>
</tr>
</tbody>
</table>

60) The above table shows some (but not all) national income accounting data for a hypothetical country. According to these data, the value of GDP is _______ billion.
   A) $2100
   B) $1850
   C) $2000
   D) $2050
   Answer: A

   *Topic: Expenditure Approach
   *Skill: Analytical
   *Question history: Previous edition, Chapter 4
   *AACSB: Analytical Skills
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<th>Item</th>
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<td>Personal consumption expenditure</td>
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<td>Exports of goods and services</td>
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<td>Depreciation</td>
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<tr>
<td>Indirect business taxes</td>
<td>75</td>
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</table>

61) Based on the data in the above table, gross domestic product equals

A) $2,190.
B) $2,840.
C) $2,465.
D) $2,750.

Answer: C

Topic: Expenditure Approach
Skill: Analytical
Question history: Previous edition, Chapter 4
AACSB: Analytical Skills

<table>
<thead>
<tr>
<th>Item</th>
<th>Billions of dollars</th>
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<tr>
<td>Personal consumption expenditure</td>
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<tr>
<td>Gross private domestic investment</td>
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<td>Government expenditure on goods and services</td>
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<td>Exports of goods and services</td>
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<tr>
<td>Imports of goods and services</td>
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<tr>
<td>Net taxes</td>
<td>50</td>
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</tbody>
</table>

62) The above table shows data from the GDP accounts of Hypothetica. Hypothetica's GDP is

   _____ billion.

A) $270
B) $210
C) $190
D) $160

Answer: D

Topic: Expenditure Approach
Skill: Analytical
Question history: Previous edition, Chapter 4
AACSB: Analytical Skills
63) If imports are $100 million less than exports, government expenditures are $500 million, consumer expenditures are $1 billion, and gross investment spending is $500 million, then GDP is
   A) $1 billion.
   B) $1.9 billion.
   C) $2 billion.
   D) $2.1 billion.
Answer: D

64) If consumption expenditures are $500 million, net investment is $100 million, depreciation equals $5 million, imports are $50 million, exports are $55 million, government expenditure on goods and services is $220 million, and government transfer payments are $20 million, then GDP is
   A) $790 million.
   B) $800 million.
   C) $830 million.
   D) $850 million.
Answer: C

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<th>Component</th>
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<td>Depreciation</td>
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<td>Government expenditure</td>
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<td>Gross investment</td>
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<td>Exports</td>
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<td>Imports</td>
<td>1,138</td>
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<tr>
<td>Household saving</td>
<td>1,202</td>
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</tbody>
</table>

65) Using the data in the table above, what is the value of GDP?
   A) $13,516 billion
   B) $10,679 billion
   C) $9,541 billion
   D) $8,403 billion
Answer: D
66) Using the data in the above table, what is the value of net exports?
   A) -$181 billion
   B) $181 billion
   C) $957 billion
   D) -$957 billion

   Answer: A
   Topic: Expenditure Approach
   Skill: Analytical
   Question history: Previous edition, Chapter 4
   AACSB: Analytical Skills

67) Using the data in the above table, what is the value of national saving?
   A) $1,202 billion
   B) $2,837 billion
   C) $1,053 billion
   D) -$85 billion

   Answer: C
   Topic: National Saving
   Skill: Analytical
   Question history: Previous edition, Chapter 4
   AACSB: Analytical Skills

<table>
<thead>
<tr>
<th>Component</th>
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<tr>
<td>Net taxes</td>
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<td>Government expenditure</td>
<td>20</td>
</tr>
<tr>
<td>Gross investment</td>
<td>26</td>
</tr>
<tr>
<td>Net exports</td>
<td>-10</td>
</tr>
<tr>
<td>Compensation of employees</td>
<td>65</td>
</tr>
</tbody>
</table>

68) Using the information in the table above, calculate gross domestic product.
   A) $118
   B) $108
   C) $86
   D) $78

   Answer: C
   Topic: Expenditure Approach
   Skill: Analytical
   Question history: Previous edition, Chapter 4
   AACSB: Analytical Skills
69) Using the information in the table above, calculate the government's budget deficit or surplus.

A) $2
B) -$4
C) -$10
D) $4

Answer: C

Topic: Expenditure Approach
Skill: Analytical
Question history: Previous edition, Chapter 4
AACSB: Analytical Skills

<table>
<thead>
<tr>
<th>Component</th>
<th>Amount (billions of dollars)</th>
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<tbody>
<tr>
<td>Personal consumption expenditure</td>
<td>3,720</td>
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<tr>
<td>Government expenditure</td>
<td>430</td>
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<tr>
<td>Gross investment</td>
<td>610</td>
</tr>
<tr>
<td>Net investment</td>
<td>520</td>
</tr>
<tr>
<td>Exports</td>
<td>650</td>
</tr>
<tr>
<td>Imports</td>
<td>720</td>
</tr>
</tbody>
</table>

70) Using the information in the table above, calculate gross domestic product.

A) $5,130 billion
B) $5,320 billion
C) $4,760 billion
D) $4,690 billion

Answer: D

Topic: Expenditure Approach
Skill: Analytical
Question history: Previous edition, Chapter 4
AACSB: Analytical Skills

71) Using the information in the table above, net exports equals

A) $1,370 billion.
B) $650 billion.
C) $20 billion.
D) -$70 billion.

Answer: D

Topic: Net Exports
Skill: Analytical
Question history: Previous edition, Chapter 4
AACSB: Analytical Skills
72) Using the information in the table above, depreciation equals
   A) $-90 billion.
   B) $90 billion.
   C) $-70 billion.
   D) some amount that cannot be determined.

   Answer: B
   Topic: Depreciation
   Skill: Analytical
   Question history: Previous edition, Chapter 4
   AACSB: Analytical Skills

   | Government purchases of goods and services | $240 |
   | Depreciation                               | 240  |
   | Gross private domestic investment          | 400  |
   | Personal income taxes                       | 140  |
   | Net taxes                                  | 120  |
   | Net exports of goods and services          | 80   |
   | Personal consumption expenditures          | 640  |
   | Net interest                               | 100  |

73) From the data in the above table, GDP equals
   A) $1,120.
   B) $1,280.
   C) $1,290.
   D) $1,360.

   Answer: D
   Topic: Expenditure Approach
   Skill: Analytical
   Question history: Previous edition, Chapter 4
   AACSB: Analytical Skills

74) The approach to GDP that sums compensation of employees, rental income, corporate profits, net interest, proprietors’ income, depreciation, and indirect taxes and subtracts subsidies is the
   A) opportunity cost approach.
   B) expenditure approach.
   C) added cost approach.
   D) income approach.

   Answer: D
   Topic: Income Approach
   Skill: Recognition
   Question history: Previous edition, Chapter 4
   AACSB: Reflective Thinking
75) The income approach to measuring GDP sums together
   A) compensation of employees, rental income, corporate profits, net interest, proprietors' income, subsidies paid by the government, indirect taxes paid, and depreciation.
   B) compensation of employees, rental income, corporate profits, net interest, proprietors’ income, indirect taxes paid, and depreciation and subtracts subsidies paid by the government.
   C) the sales of each firm in the economy.
   D) the costs of each firm in the economy and then subtracts indirect business taxes and depreciation.

   Answer: B

76) Proprietors’ income is a component of which approach to measuring GDP?
   A) incomes approach
   B) expenditure approach
   C) cost approach
   D) output approach

   Answer: A

77) The income approach to measuring GDP
   A) determines the cost of production, then adjusts it to equal the market value of production.
   B) sums all incomes earned in the United States and makes no other adjustments because other adjustments are not necessary.
   C) measures the cost of producing GDP rather than the market value.
   D) sums the value at each stage of production plus the value of depreciation.

   Answer: A

78) The five categories of income used in the income approach to the measurement of GDP are
   A) consumption, saving, rental income, corporate profits, and investment.
   B) employee compensation, net interest, rental income, corporate profits, and proprietor's income.
   C) employee compensation, consumption, rental income, corporate profits, and proprietor's income.
   D) employee compensation, saving, rental income, corporate profits, and investment.

   Answer: B
79) Which of the following expressions equals GDP?
   A) compensation of employees + consumption + depreciation + net investment
   B) compensation of employees + net interest + rental income + depreciation + corporate profits + proprietors’ income + indirect taxes - subsidies
   C) compensation of employees + net exports + depreciation + corporate profits
   D) compensation of employees + gross investment + rental income + depreciation + corporate profits + indirect taxes - subsidies

   Answer: B

80) Which of the following is a component of the incomes approach to GDP?
   A) consumption expenditure
   B) wages and salaries
   C) investment
   D) government expenditure on goods and services

   Answer: B

81) The income approach measures GDP by adding together compensation of employees, proprietors’ income, ________.
   A) net investment, saving, and farmers’ income
   B) net interest, rental income, and corporate profits
   C) net investment, rental income, and corporate profits
   D) net saving, investment income, and profits

   Answer: B

82) Which of the following items is NOT a component of the income approach to measuring U.S. GDP?
   A) interest earned on savings deposits
   B) profits made by businesses
   C) income earned by businesses that export goods
   D) investment

   Answer: D
83) Which of the following is **NOT** a part of the income approach to determining GDP?
   A) rental income  
   B) gross private domestic investment  
   C) net interest  
   D) indirect business taxes  
   Answer: B  
   **Topic: Income Approach**  
   **Skill: Recognition**  
   **Question history: Previous edition, Chapter 4**  
   **AACSB: Reflective Thinking**

84) Which of the following is **NOT** one of the components for computing GDP based upon the income approach?
   A) investment  
   B) corporate profits  
   C) compensation of employees  
   D) net interest  
   Answer: A  
   **Topic: Income Approach**  
   **Skill: Recognition**  
   **Question history: Previous edition, Chapter 4**  
   **AACSB: Reflective Thinking**

85) Which of the following is **NOT** included in the income approach to measuring GDP?
   A) net interest  
   B) net exports  
   C) corporate profits  
   D) compensation of employees  
   Answer: B  
   **Topic: Income Approach**  
   **Skill: Recognition**  
   **Question history: Previous edition, Chapter 4**  
   **AACSB: Reflective Thinking**

86) In the country of Darrowby, net domestic income at factor cost is $2.0 million. Gross domestic product is $3.0 million, and depreciation is $0.5 million. Indirect taxes less subsidies _______.
   A) are $1 million  
   B) are $0.5 million  
   C) cannot be calculated  
   D) are –$0.5 million  
   Answer: B  
   **Topic: Income Approach**  
   **Skill: Analytical**  
   **Question history: Previous edition, Chapter 4**  
   **AACSB: Analytical Skills**
<table>
<thead>
<tr>
<th>Item</th>
<th>Billions of dollars</th>
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</thead>
<tbody>
<tr>
<td>Compensation of employees</td>
<td>80</td>
</tr>
<tr>
<td>Net interest and rental income</td>
<td>30</td>
</tr>
<tr>
<td>Corporate profits</td>
<td>10</td>
</tr>
<tr>
<td>Proprietor’s income</td>
<td>20</td>
</tr>
</tbody>
</table>

87) Use the information in the table above plus the fact that indirect taxes less subsidies are $10 billion and depreciation is $30 billion to calculate the value of GDP.

A) $180 billion  
B) $150 billion  
C) $140 billion  
D) $130 billion

Answer: A  
*Topic: Income Approach*  
*Skill: Analytical*  
*Question history: Previous edition, Chapter 4*  
*AACSB: Analytical Skills*

88) The largest component of national income is

A) compensation of employees.  
B) rental income.  
C) corporate profits.  
D) proprietors’ income.

Answer: A  
*Topic: Income Approach, Compensation of Employees*  
*Skill: Recognition*  
*Question history: Previous edition, Chapter 4*  
*AACSB: Reflective Thinking*

89) Looking at the components of the income approach we see that

A) compensation of employees is the largest category.  
B) consumption is the largest category.  
C) profits are the largest category.  
D) rental income is the largest category.

Answer: A  
*Topic: Income Approach, Compensation of Employees*  
*Skill: Recognition*  
*Question history: Previous edition, Chapter 4*  
*AACSB: Reflective Thinking*
90) Compensation paid to employees represented _______ of GDP for the United States in 2010.
   A) about 5 percent
   B) approximately 15 percent
   C) 35 percent
   D) more than 50 percent

   Answer: D
   
   Topic: Income Approach, Compensation of Employees
   Skill: Recognition
   Question history: Previous edition, Chapter 4
   AACSB: Reflective Thinking

91) Which of the following is included in "compensation of employees" part of the income approach to measuring GDP?
   I. Wages and salaries.
   II. Pension fund contributions.
   III. Social security contributions.
      A) I only
      B) I and II
      C) I and III
      D) I, II and III

   Answer: D
   
   Topic: Income Approach, Compensation of Employees
   Skill: Recognition
   Question history: Previous edition, Chapter 4
   AACSB: Reflective Thinking

92) When calculating the compensation of employees part of GDP,
   A) social security contributions must be included.
   B) fringe benefits are not included.
   C) taxes withheld on earnings are not included.
   D) the value of vacation time must be included.

   Answer: A
   
   Topic: Income Approach, Compensation of Employees
   Skill: Recognition
   Question history: Previous edition, Chapter 4
   AACSB: Reflective Thinking

93) In the national income accounts, net interest is the total interest payments received by households on loans made by them minus
   A) interest received from households' ownership of government bonds.
   B) interest payments made by households on their own borrowing.
   C) interest payments made by households to foreign lenders.
   D) taxes paid by households on their interest income.

   Answer: B
   
   Topic: Income Approach, Net Interest
   Skill: Recognition
   Question history: Previous edition, Chapter 4
   AACSB: Reflective Thinking
94) Rental income includes
   A) the payment for the use of land.
   B) the payment for the use of all rented inputs.
   C) no income from rental housing because most houses are occupied by their owners.
   D) Both answers A and B are correct.

Answer: D

Topic: Income Approach, Rental Income
Skill: Recognition
Question history: Previous edition, Chapter 4
AACSB: Reflective Thinking

95) Which of the following is included in the category of corporate profits when measuring GDP?
   I. Profits paid as dividends.
   II. Undistributed profits.
   III. Income received by owners and operators of businesses.

   A) I only
   B) I and II
   C) I and III
   D) I, II and III

Answer: B

Topic: Income Approach, Corporate Profits
Skill: Recognition
Question history: Previous edition, Chapter 4
AACSB: Reflective Thinking

96) An indirect tax is a tax paid by consumers
   A) to a state or local government.
   B) when they purchase goods and services.
   C) on unearned income (as opposed to wages and salaries).
   D) that is a percentage of the value of their real property.

Answer: B

Topic: Indirect Tax
Skill: Recognition
Question history: Previous edition, Chapter 4
AACSB: Reflective Thinking

97) An indirect tax is exemplified by
   A) an income tax.
   B) a sales tax.
   C) a subsidy.
   D) None of the above answers is correct.

Answer: B

Topic: Indirect Tax
Skill: Conceptual
Question history: Previous edition, Chapter 4
AACSB: Reflective Thinking
98) Which of the following best represents an indirect tax?
   A) federal income tax
   B) state income tax
   C) local property tax
   D) sales taxes paid on goods and services

   Answer: D
   Topic: Indirect Tax
   Skill: Conceptual
   Question history: New 10th edition
   AACSB: Reflective Thinking

99) The presence of _______ creates a difference in the value between the market price and the factor cost of a product.
   A) indirect taxes and consumption
   B) subsidies and direct taxes
   C) corporate profits and subsidies
   D) indirect taxes and subsidies

   Answer: D
   Topic: Indirect Tax
   Skill: Conceptual
   Question history: Previous edition, Chapter 4
   AACSB: Reflective Thinking

100) The sum of compensation to employees, rental income, corporate profits, net interest, and proprietors' income is
   A) gross domestic product.
   B) gross domestic income.
   C) net domestic income at factor cost.
   D) net domestic product.

   Answer: C
   Topic: Net Domestic Income at Factor Cost
   Skill: Recognition
   Question history: Previous edition, Chapter 4
   AACSB: Reflective Thinking

101) Two reasons why valuing goods at their market prices is different than valuing them at their factor costs include
   A) depreciation and investment.
   B) exports and imports.
   C) personal taxes and corporate taxes.
   D) indirect taxes and subsidies.

   Answer: D
   Topic: Net Domestic Income at Factor Cost
   Skill: Conceptual
   Question history: Previous edition, Chapter 4
   AACSB: Reflective Thinking
Corporate profits $200
Net interest 150
Indirect taxes less subsidies 230
Depreciation 250
Compensation of employees 1,350
Proprietor’s income 150
Rental income 70
Personal consumption expenditures 1,400
Government expenditure on goods and services 500
Net exports of goods and services 40

102) Using the data in the table above, gross domestic product equals
A) $1,920.
B) $1,940.
C) $2,150.
D) $2,400.

Answer: D

Topic: Income Approach
Skill: Analytical
Question history: Previous edition, Chapter 4
AACSB: Analytical Skills

103) Using the data in the above table, gross private domestic investment equals
A) $250.
B) $260.
C) $460.
D) some amount that cannot be determined without more information.

Answer: C

Topic: Expenditure Approach
Skill: Analytical
Question history: Previous edition, Chapter 4
AACSB: Analytical Skills

104) Using the data in the above table, net private domestic investment equals
A) $210.
B) $260.
C) $510.
D) some amount that cannot be determined without more information.

Answer: A

Topic: Expenditure Approach
Skill: Analytical
Question history: Previous edition, Chapter 4
AACSB: Analytical Skills
<table>
<thead>
<tr>
<th>Item</th>
<th>Billions of dollars</th>
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<tbody>
<tr>
<td>Personal income</td>
<td>1,200</td>
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<tr>
<td>Net domestic income at factor cost</td>
<td>2,100</td>
</tr>
<tr>
<td>Government expenditure on goods and services</td>
<td>400</td>
</tr>
<tr>
<td>Depreciation</td>
<td>200</td>
</tr>
<tr>
<td>Gross private domestic investment</td>
<td>100</td>
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<tr>
<td>Indirect taxes</td>
<td>600</td>
</tr>
<tr>
<td>Subsidies</td>
<td>100</td>
</tr>
</tbody>
</table>

105) The above table shows some national income accounting data for a nation. In this nation, gross domestic product is equal to ______ billion.
   A) $2,000
   B) $2,300
   C) $2,500
   D) $2,800

Answer: D

Topic: Income Approach
Skill: Analytical
Question history: Previous edition, Chapter 4
AACSB: Analytical Skills
<table>
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<th>Dollars</th>
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<td>Net interest</td>
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<td>Government expenditure on goods and services</td>
<td>136</td>
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<tr>
<td>Compensation of employees</td>
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<tr>
<td>Rental income</td>
<td>37</td>
</tr>
<tr>
<td>Proprietors’ income</td>
<td>128</td>
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<tr>
<td>Indirect taxes minus subsidies</td>
<td>259</td>
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<tr>
<td>Corporate profits</td>
<td>194</td>
</tr>
<tr>
<td>Exports of goods and services</td>
<td>249</td>
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<tr>
<td>Imports of goods and services</td>
<td>289</td>
</tr>
<tr>
<td>Depreciation</td>
<td>333</td>
</tr>
</tbody>
</table>

106) Using the data in the above table, gross domestic product as calculated by the income approach equals ________.
   A) $2,333
   B) $2,592
   C) $2,925
   D) $2,205

Answer: C

Topic: Income Approach
Skill: Analytical

Question history: Previous edition, Chapter 4
AACSB: Analytical Skills

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Chapter 4  Measuring GDP and Economic Growth  541

<table>
<thead>
<tr>
<th>Component</th>
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<tr>
<td>Gross investment</td>
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<tr>
<td>Depreciation</td>
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<tr>
<td>Government expenditure on goods and services</td>
<td>1315</td>
</tr>
<tr>
<td>U.S. imports</td>
<td>260</td>
</tr>
<tr>
<td>U.S. exports</td>
<td>249</td>
</tr>
<tr>
<td>Compensation of employees</td>
<td>65</td>
</tr>
</tbody>
</table>

107) The above table gives data for a hypothetical nation. Gross domestic product is

A) $4,049 billion.
B) $4,079 billion.
C) $4,054 billion.
D) $4,339 billion.

Answer: B

Topic: Expenditure Approach
Skill: Analytical
Question history: Previous edition, Chapter 4
AACSB: Analytical Skills

108) Nominal GDP is

A) real GDP adjusted for price changes.
B) GDP valued at prices of that year.
C) GDP valued at constant prices.
D) real GDP valued at base year prices.

Answer: B

Topic: Nominal GDP
Skill: Recognition
Question history: Previous edition, Chapter 4
AACSB: Reflective Thinking

109) Nominal GDP is the value of final goods and services

A) at the prices of that year.
B) at the prices of the immediately previous year.
C) at the prices of a base year.
D) produced in foreign countries but consumed in the domestic country.

Answer: A

Topic: Nominal GDP
Skill: Recognition
Question history: New 10th edition
AACSB: Reflective Thinking

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110) Normally in the United States the relationship between nominal and real GDP for a given year is
   A) real GDP is greater than nominal GDP because of price increases.
   B) nominal GDP is greater than real GDP because of price increases.
   C) nominal GDP equals real GDP.
   D) nominal GDP is greater than real GDP because of price decreases.

Answer: B

111) Of the following, which is correct?
   A) Nominal GDP does not change when the production of goods and services increases.
   B) Nominal GDP is not affected by changes in prices of goods and services.
   C) Nominal GDP increases when the prices of goods and services increase.
   D) Real GDP changes only when the prices of goods and services really change.

Answer: C

112) Real GDP is
   A) an increase in the average level of prices.
   B) the value of total production when the unemployment rate is 6 percent.
   C) the value of total production of all the nation's farms, factories, shops and offices measured in the prices of a single year.
   D) the value of total production of all the nation's farms, factories, shops and offices measured at the prices of the year it was produced.

Answer: C

113) Real GDP measures the
   A) total profits earned by all businesses valued using prices from a single year.
   B) changes in the prices of output measured in dollars.
   C) general upward drift in prices.
   D) value of total production linked to prices of a single year.

Answer: D
114) _______ gross domestic product is the value of _______ linked back to the prices of a single year.
   A) Real; total production
   B) Real; production possibilities
   C) Productivity; the consumer price index
   D) Nominal; total production

   Answer: A
   Topic: Real GDP
   Skill: Recognition
   Question history: Previous edition, Chapter 4
   AACSB: Reflective Thinking

115) Real Gross Domestic Product is
   A) the amount of people unemployed divided by the total labor force.
   B) the productivity of labor.
   C) the most that can be produced when the economy’s resources are fully employed.
   D) the value of total production linked back to the prices of a single year.

   Answer: D
   Topic: Real GDP
   Skill: Recognition
   Question history: Previous edition, Chapter 4
   AACSB: Reflective Thinking

116) Which of the following is TRUE regarding real GDP?
   I. Real GDP is the value of the total production of the country’s farms, factories, shops, and offices.
   II. Real GDP rises whenever inflation occurs.
   III. Real GDP does not measure all that is produced.

   A) I and II
   B) I and III
   C) II and III
   D) I, II and III

   Answer: B
   Topic: Real GDP
   Skill: Conceptual
   Question history: Previous edition, Chapter 4
   AACSB: Reflective Thinking

117) In years with inflation, nominal GDP increases _______ real GDP.
   A) faster than
   B) slower than
   C) at the same rate as
   D) sometimes faster, sometimes slower, and sometimes at the same rate as

   Answer: A
   Topic: Real and Nominal GDP
   Skill: Conceptual
   Question history: Previous edition, Chapter 4
   AACSB: Reflective Thinking
118) Suppose an economy has some inflation. Then, after a base year, the value of real GDP will
A) be less than nominal GDP.
B) not be different from nominal GDP.
C) be greater than nominal GDP.
D) will be approximately half the value of nominal GDP.
Answer: C

119) Gross private domestic investment is a component of which approach to measuring GDP?
A) incomes approach
B) expenditure approach
C) linking approach
D) output approach
Answer: B

120) Which of the following is NOT a component of the incomes approach to GDP?
A) net exports
B) wages and salaries
C) corporate profits
D) proprietors’ income
Answer: A

3 The Uses and Limitations of Real GDP

1) The maximum amount of production that can be produced while avoiding shortages of labor, capital, land, and entrepreneurship that would bring rising inflation is called
A) real GDP.
B) nominal GDP.
C) actual GDP.
D) potential GDP.
Answer: D
2) Potential GDP is
   A) another name for real GDP.
   B) always different from real GDP.
   C) the level of GDP not adjusted for price changes.
   D) the maximum amount of GDP that can be produced while avoiding shortages of labor, capital, land, and entrepreneurship that would bring rising inflation.
   Answer: D

Topic: Potential GDP
Skill: Recognition
Question history: Modified 10th edition
AACSB: Reflective Thinking

3) Potential GDP is
   A) the maximum GDP that an economy actually achieves throughout its entire history.
   B) the level of GDP achieved during periods when 100 percent of the labor force is employed.
   C) a goal that can never be achieved by the economy.
   D) the maximum amount of GDP that can be produced while avoiding shortages of labor, capital, land, and entrepreneurship that would bring rising inflation.
   Answer: D

Topic: Potential GDP
Skill: Recognition
Question history: Modified 10th edition
AACSB: Reflective Thinking

4) Potential GDP is the
   A) the maximum amount of production that can be produced while avoiding shortages of labor, capital, land, and entrepreneurship that would bring rising inflation.
   B) current value of production in the economy.
   C) value of production when the economy is in a recession.
   D) value of production when the economy is at a peak.
   Answer: A

Topic: Potential GDP
Skill: Recognition
Question history: Modified 10th edition
AACSB: Reflective Thinking

5) Potential GDP
   A) measures the actual production from year to year.
   B) measures the maximum amount of production that can be produced while avoiding shortages of labor, capital, land, and entrepreneurship that would bring rising inflation.
   C) is cyclical.
   D) Both answers A and C are correct
   Answer: B

Topic: Potential GDP
Skill: Conceptual
Question history: Modified 10th edition
AACSB: Reflective Thinking
6) In any year, real GDP
   A) must always be less than potential GDP.
   B) might be greater or less than potential GDP.
   C) will always be greater than potential GDP because of the tendency of nations to incur inflation.
   D) always equals potential GDP.

   Answer: B
   Topic: Potential GDP
   Skill: Conceptual
   Question history: Previous edition, Chapter 4
   AACSB: Reflective Thinking

7) The relationship between real GDP and potential GDP is that
   A) real GDP always equals potential GDP.
   B) real GDP never equals potential GDP.
   C) real GDP fluctuates about potential GDP.
   D) real GDP is always below potential GDP.

   Answer: C
   Topic: Potential GDP
   Skill: Conceptual
   Question history: Previous edition, Chapter 4
   AACSB: Reflective Thinking

8) In any year, real GDP
   A) must always be less than potential GDP.
   B) might be greater or less than potential GDP.
   C) will be greater than potential GDP if the inflation rate is positive.
   D) always equals potential GDP.

   Answer: B
   Topic: Potential GDP
   Skill: Conceptual
   Question history: Modified 10th edition
   AACSB: Reflective Thinking

9) ______ refers to a period when the ______ decreases.
   A) Recession; growth rate of nominal GDP
   B) Recession; growth rate of output per person
   C) Productivity growth slowdown; growth rate of real GDP
   D) Productivity growth slowdown; growth rate of output per person

   Answer: D
   Topic: Productivity Growth Slowdown
   Skill: Recognition
   Question history: Previous edition, Chapter 4
   AACSB: Reflective Thinking
10) The series of ups and downs the economy tends to move in is called
   A) the business cycle.
   B) a recession.
   C) a depression.
   D) economic growth.

   Answer: A
   Topic: Business Cycle
   Skill: Recognition
   Question history: Previous edition, Chapter 4
   AACSB: Reflective Thinking

11) The business cycle refers to
   A) fluctuations in the level of real GDP around potential GDP.
   B) changes in the level of nominal GDP.
   C) changes in the level of the stock market.
   D) changes in the level of employment.

   Answer: A
   Topic: Business Cycle
   Skill: Recognition
   Question history: Previous edition, Chapter 4
   AACSB: Reflective Thinking

12) A business cycle is
   A) the pattern of short-run upward and downward movements in total output.
   B) the increase in consumer spending that accompanies an increase in disposable income.
   C) the cyclical change in the nation's balance of trade.
   D) the cyclical movement in the interest rates.

   Answer: A
   Topic: Business Cycle
   Skill: Recognition
   Question history: Previous edition, Chapter 4
   AACSB: Reflective Thinking

13) The business cycle is the
   A) regular growth rate of the real GDP.
   B) regular fluctuations of real GDP below potential GDP.
   C) irregular fluctuations of prices around real GDP.
   D) irregular fluctuations of real GDP around potential GDP.

   Answer: D
   Topic: Business Cycle
   Skill: Recognition
   Question history: Modified 10th edition
   AACSB: Reflective Thinking
14) Business cycles are
   A) irregular, with some having two recessions and no expansion.
   B) predictable, with a recession following a trough.
   C) unpredictable, but always have two phases and two turning points.
   D) unpredictable, and don’t always have two phases and two turning points.

   Answer: C
   Topic: Business Cycle
   Skill: Recognition
   Question history: Previous edition, Chapter 4
   AACSB: Reflective Thinking

15) Business cycles
   A) are more volatile during a Republican administration.
   B) are unpredictable due to political upheavals and global markets.
   C) follow a pattern of trough, expansion, peak and recession.
   D) are all identical in duration over the last century.

   Answer: C
   Topic: Business Cycle
   Skill: Conceptual
   Question history: Previous edition, Chapter 4
   AACSB: Reflective Thinking

16) Which of the following statements is true?
   A) Real GDP fluctuates around potential GDP.
   B) Potential GDP fluctuates around real GDP.
   C) Potential GDP is the same as real GDP.
   D) When all of the economy’s resources are fully employed, the value of production is called real GDP.

   Answer: A
   Topic: Business Cycle
   Skill: Recognition
   Question history: Previous edition, Chapter 4
   AACSB: Reflective Thinking

17) Real GDP
   A) fluctuates from year to year but is always below potential GDP.
   B) fluctuates around potential GDP.
   C) grows at a constant 3 to 4 percent per year.
   D) can be called potential GDP when it is adjusted for price changes.

   Answer: B
   Topic: Business Cycle
   Skill: Recognition
   Question history: Previous edition, Chapter 4
   AACSB: Reflective Thinking
18) The term "business cycle" most closely refers to the
   A) fluctuating profits of firms.
   B) fiscal year.
   C) accounting period used by firms.
   D) alternating periods of expansions and recessions.

   Answer: D
   Topic: Business Cycle
   Skill: Recognition
   Question history: Previous edition, Chapter 4
   AACSB: Reflective Thinking

19) Which of the following is not a phase or turning point of the business cycle?
   A) recession
   B) expansion
   C) shutdown
   D) trough

   Answer: C
   Topic: Business Cycle
   Skill: Recognition
   Question history: Previous edition, Chapter 4
   AACSB: Reflective Thinking

20) The four parts of the business cycle occur in the following order:
   A) recession, trough, peak, expansion.
   B) expansion, trough, peak, recession.
   C) recession, trough, expansion, peak.
   D) expansion, trough, recession, peak.

   Answer: C
   Topic: Business Cycle
   Skill: Recognition
   Question history: Previous edition, Chapter 4
   AACSB: Reflective Thinking

21) Which of the following are parts of the business cycles?
   A) peak and potential GDP
   B) real GDP and potential GDP
   C) recession and expansion
   D) inflation and recession

   Answer: C
   Topic: Business Cycle
   Skill: Recognition
   Question history: Previous edition, Chapter 4
   AACSB: Reflective Thinking
22) Which of the following is TRUE regarding business cycles?
   I. Cycles are predictable.
   II. In each cycle, a peak follows an expansion.
   III. Potential GDP fluctuates around real GDP.
   A) I and II
   B) I and III
   C) II and III
   D) II only
   Answer: D
   Topic: Business Cycle
   Skill: Conceptual
   Question history: Previous edition, Chapter 4
   AASCB: Reflective Thinking

23) A common definition of a recession is a time with
   A) a decline in the price level.
   B) a decline in interest rates.
   C) a decrease in real GDP for two or more successive quarters.
   D) a decrease in real GDP for two or more successive years.
   Answer: C
   Topic: Business Cycle
   Skill: Recognition
   Question history: Modified 10th edition
   AASCB: Reflective Thinking

24) A recession is commonly defined as a period with
   A) negative growth rate in real GDP that lasts at least one quarter.
   B) positive growth rate in real GDP that lasts at least one quarter.
   C) positive growth rate in real GDP that lasts at least two quarters.
   D) negative growth rate in real GDP that lasts at least two quarters.
   Answer: D
   Topic: Business Cycle
   Skill: Recognition
   Question history: Previous edition, Chapter 4
   AASCB: Reflective Thinking

25) A common definition of a recession is a period of time
   A) of at least 6 months during which real GDP decreases.
   B) with an increase in real economic output from the previous period.
   C) with no change in real GDP.
   D) with no change in the dollar (money) value of economic output.
   Answer: A
   Topic: Business Cycle
   Skill: Recognition
   Question history: Previous edition, Chapter 4
   AASCB: Reflective Thinking
26) A recession is commonly defined as occurring when
   A) real GDP decreases for a period of 12 or more months.
   B) real GDP decreases for a period of 6 or more months.
   C) the unemployment rate rises above 7.5 percent for 6 or more months.
   D) the unemployment rate rises above 5.0 percent for 12 or more months.

   Answer: B
   Topic: Business Cycle
   Skill: Recognition
   Question history: Previous edition, Chapter 4
   AACSB: Reflective Thinking

27) By common definition, a recession occurs when
   A) the international deficit worsens for at least two successive quarters.
   B) the government budget deficit exceeds the national debt.
   C) the inflation rate exceeds 3.5 percent.
   D) real GDP decreases for at least two successive quarters.

   Answer: D
   Topic: Business Cycle
   Skill: Recognition
   Question history: Previous edition, Chapter 4
   AACSB: Reflective Thinking

28) Recessions are commonly defined to occur
   A) whenever unemployment increases.
   B) when growth in real GDP decreases for two consecutive quarters.
   C) when growth in real GDP is negative for two consecutive quarters.
   D) when the unemployment rate exceeds 6 percent.

   Answer: C
   Topic: Business Cycle
   Skill: Recognition
   Question history: Previous edition, Chapter 4
   AACSB: Reflective Thinking

29) Real GDP decreases during
   A) the movement from trough to peak.
   B) the movement from below potential GDP back to potential GDP.
   C) the movement from peak to trough.
   D) a decrease in unemployment.

   Answer: C
   Topic: Business Cycle
   Skill: Recognition
   Question history: Modified 10th edition
   AACSB: Reflective Thinking
30) When a recession ends, the turning point that immediately follows is called a
   A) trough.
   B) peak.
   C) depression.
   D) None of the above answers is correct.

   Answer: A
   Topic: Business Cycle
   Skill: Recognition
   Question history: Previous edition, Chapter 4
   AACSB: Reflective Thinking

31) The low point of economic activity during a business cycle is called the
   A) trough.
   B) recession.
   C) peak.
   D) failure.

   Answer: A
   Topic: Business Cycle
   Skill: Recognition
   Question history: New 10th edition
   AACSB: Reflective Thinking

32) What term is used to describe the lowest point of a business cycle?
   A) peak
   B) trough
   C) expansion
   D) recession

   Answer: B
   Topic: Business Cycle
   Skill: Recognition
   Question history: Previous edition, Chapter 4
   AACSB: Reflective Thinking

33) A trough is the
   A) lower turning point of a business cycle when an expansion begins.
   B) lower turning point of a business cycle when a recession begins.
   C) upper turning point of a business cycle when an expansion begins.
   D) upper turning point of a business cycle when a recession begins.

   Answer: A
   Topic: Business Cycle
   Skill: Recognition
   Question history: Previous edition, Chapter 4
   AACSB: Reflective Thinking
34) An expansion occurs when the level of real GDP is
   A) increasing.
   B) decreasing.
   C) at a cyclical peak.
   D) at a cyclical trough.
   Answer: A  
   Topic: Business Cycle  
   Skill: Recognition  
   Question history: Previous edition, Chapter 4  
   AACSB: Reflective Thinking

35) An expansion
   A) follows a peak.
   B) is defined as a period of negative real GDP growth.
   C) comes just before a trough.
   D) is defined as a period of real GDP increases.
   Answer: D  
   Topic: Business Cycle  
   Skill: Recognition  
   Question history: Previous edition, Chapter 4  
   AACSB: Reflective Thinking

36) An expansion ends when the economy
   A) hits a trough and then enters a recession.
   B) hits a peak and then enters a recession.
   C) begins to grow following a peak.
   D) has grown for two quarters in a row.
   Answer: B  
   Topic: Business Cycle  
   Skill: Recognition  
   Question history: Previous edition, Chapter 4  
   AACSB: Reflective Thinking

37) The times during which real GDP increases are referred to as
   A) contractions.
   B) expansions.
   C) anti-cycles.
   D) corrections.
   Answer: B  
   Topic: Business Cycle  
   Skill: Recognition  
   Question history: Previous edition, Chapter 4  
   AACSB: Reflective Thinking
38) Suppose the country of Dingo experienced an economic trough in January 2011. We can conclude that
   A) real GDP in Dingo was increasing in January 2011.
   B) an expansion occurred after January 2011.
   C) Dingo did not experience a recession in 2010.
   D) Dingo’s potential GDP fell in 2011.
Answer: B

39) An economy recovering from a recession
   A) moves up from its trough to a period of expansion.
   B) moves up from its peak to a period of expansion.
   C) moves down from its trough to a period of depression.
   D) moves down from its peak to a period of expansion.
Answer: A

40) An economic expansion rather than a recession occurs
   A) when the federal budget is balanced.
   B) when the unemployment rate falls below 5 percent.
   C) when growth in real GDP is positive.
   D) when the unemployment rate is not changing.
Answer: C

41) A peak is the
   A) lower turning point of a business cycle when an expansion ends.
   B) lower turning point of a business cycle when a recession ends.
   C) upper turning point of a business cycle when an expansion ends.
   D) upper turning point of a business cycle when a recession ends.
Answer: C
42) In the above figure, the distance between points S and T represents
   A) an expansion.
   B) a trough.
   C) a peak.
   D) a recession.
   Answer: D

43) In the above figure, the distance between points T and U represents
   A) an expansion.
   B) a trough.
   C) a peak.
   D) a recession.
   Answer: A
44) In the above figure, a recession begins at point _______ and an expansion begins at point _______.
A) a; b
B) b; c
C) b; a
D) d; c
Answer: A

Topic: Business Cycle
Skill: Analytical
Question history: Previous edition, Chapter 4
AACSB: Analytical Skills

45) In the above figure, a trough is at point _______ and a peak is at point _______.
A) a; b
B) b; c
C) b; a
D) d; c
Answer: C

Topic: Business Cycle
Skill: Analytical
Question history: Previous edition, Chapter 4
AACSB: Analytical Skills
46) In the above figure, which point represents the under use of resources?
   A) point F  
   B) point G  
   C) point H  
   D) point K
   Answer: B
   Topic: Business Cycle
   Skill: Conceptual
   Question history: Previous edition, Chapter 4
   AACSB: Analytical Skills

47) In the above figure, which point represents a situation with significant shortages of labor, capital, and other resources?
   A) point F  
   B) point G  
   C) point I  
   D) point K
   Answer: A
   Topic: Business Cycle
   Skill: Conceptual
   Question history: Modified 10th edition
   AACSB: Analytical Skills
48) In the above figure, which point represents an economy which is at the peak part of a business cycle?
   A) point F
   B) point G
   C) point I
   D) point K

   Answer: A

   Topic: Business Cycle
   Skill: Recognition
   Question history: Previous edition, Chapter 4
   AACSB: Analytical Skills

49) In the above figure, the letters A, B, and C represent which positions in the business cycle?
   A) peak, expansion, and recession, respectively
   B) recession, expansion, and peak, respectively
   C) expansion, peak, and recession, respectively
   D) peak, recession, and expansion, respectively

   Answer: D

   Topic: Business Cycle
   Skill: Analytical
   Question history: Previous edition, Chapter 4
   AACSB: Analytical Skills
50) Real GDP is not a perfect indicator of economic welfare because _______.  
A) it includes the underground economy  
B) it includes a direct measure of health and life expectancy  
C) it underestimates inflation  
D) economic welfare depends on many factors not measured or not measured accurately by real GDP  
Answer: D  
Topic: GDP and Economic Welfare Comparisons  
Skill: Recognition  
Question history: Previous edition, Chapter 4  
AACS: Reflective Thinking

51) Real GDP does not show the state of economic welfare in a country in part because GDP omits  
I. household production.  
II. leisure time available.  
III. the quality of the environment.  
A) I only  
B) I and III  
C) II and III  
D) I, II and III  
Answer: D  
Topic: GDP and Economic Welfare Comparisons  
Skill: Conceptual  
Question history: Previous edition, Chapter 4  
AACS: Reflective Thinking

52) Real GDP can be criticized as a measure of economic welfare because it  
A) does not include the value of products produced in the household.  
B) does not take account of the degradation of environmental quality.  
C) does not include leisure time available to a society.  
D) All of the above answers are correct.  
Answer: D  
Topic: Economic Welfare Comparisons  
Skill: Conceptual  
Question history: Previous edition, Chapter 4  
AACS: Reflective Thinking

53) A country that has a large real GDP per person might not necessarily have a high level of economic welfare because it may have  
A) very little political freedom.  
B) environmental problems.  
C) little leisure time.  
D) All of the above answers are correct.  
Answer: D  
Topic: GDP and Economic Welfare Comparisons  
Skill: Conceptual  
Question history: Previous edition, Chapter 4  
AACS: Reflective Thinking
54) Which, if any, of the following causes reported GDP to be less than total economic production?
   A) the exclusion of household production
   B) the exclusion of government transfers
   C) the inclusion of government expenditures
   D) None of the above cause reported GDP to be less than total production.

Answer: A

Topic: Household Production
Skill: Recognition
Question history: Modified 10th edition
AACSB: Reflective Thinking

55) In calculating GDP, household production is
   A) included as part of consumption.
   B) ignored because it is not a large amount.
   C) not included because there is no market transaction.
   D) included under employee compensation.

Answer: C

Topic: Household Production
Skill: Conceptual
Question history: Previous edition, Chapter 4
AACSB: Reflective Thinking

56) Which of the following is NOT included in real GDP?
   A) production of services, such as the services of doctors
   B) production of goods that last more than one year, such as television sets
   C) production of goods that do not last more than one year, such as gasoline
   D) production in the home

Answer: D

Topic: Household Production
Skill: Recognition
Question history: Previous edition, Chapter 4
AACSB: Reflective Thinking

57) If a larger fraction of the adult population is working in the marketplace, household production
   A) counted in real GDP increases.
   B) not counted in real GDP increases.
   C) counted in real GDP increases.
   D) not counted in real GDP decreases.

Answer: D

Topic: Household Production
Skill: Analytical
Question history: Previous edition, Chapter 4
AACSB: Reflective Thinking
58) Reported GDP increases when, in fact, total production is unchanged when
i. there is a shift from household production to market production.
ii. a previously illegal activity is legalized.
   A) i only
   B) ii only
   C) Neither i nor ii
   D) Both i and ii.
Answer: D

59) When calculating GDP, underground economic activity is
   A) the production of goods and services in the home.
   B) that portion of the time when we are enjoying leisure activities and not producing
      marketable goods.
   C) the part of the economy purposely hidden.
   D) an aspect of the quality of life, such as health and life expectancy.
Answer: C

60) In part, the underground economy exists because of the
   A) irrationality of people who choose to evade taxes.
   B) high tax rates.
   C) ease of entry into the occupations that compose it.
   D) greater efficiency of barter transactions compared to monetary ones.
Answer: B

61) Which of the following is NOT included in real GDP?
   A) production of services, such as the services of hairdressers
   B) production of goods that last less than a year, such as production of hot dogs
   C) production that takes place in the underground economy
   D) production of goods that last more than a year, such as a pair of roller blades
Answer: C
62) The underground economy exists for all of the following reasons EXCEPT the
   A) production of illegal goods.
   B) avoidance of taxes.
   C) desire to maintain accurate records of economic transactions.
   D) avoidance of government regulation.

   Answer: C
   Topic: Underground Economic Activity
   Skill: Conceptual
   Question history: Previous edition, Chapter 4
   AACSB: Reflective Thinking

63) Because pollution reduces economic welfare, on this count real GDP as measured
   A) decreases as pollution increases.
   B) increases to take into account the expenditures that will be made in the future to clean up
      the pollution.
   C) overstates economic welfare.
   D) understates economic welfare.

   Answer: C
   Topic: Environmental Quality
   Skill: Conceptual
   Question history: Modified 10th edition
   AACSB: Reflective Thinking

64) In the post World War II period, considerable growth in total production took place in the
    United States. But at the same time, businesses were dumping their waste into the Great Lakes
    with minimal cost to themselves, significantly polluting the bodies of water as a result. This
    occurrence is an example where
    A) real GDP gives an overly positive view of economic welfare.
    B) real GDP gives an overly negative view of economic welfare.
    C) investment would have been a better measure of total production.
    D) the pollution counts as a final good.

   Answer: A
   Topic: Environmental Quality
   Skill: Conceptual
   Question history: Modified 10th edition
   AACSB: Reflective Thinking

65) Which of the following would lead GDP to overstate economic welfare?
   A) the existence of home-cooked meals
   B) restaurant workers that under-report tip income
   C) a self-employed CPA who takes a longer than normal vacation
   D) electric utilities that switch to burning coal because of higher natural gas prices and
      thereby create more acid rain pollution

   Answer: D
   Topic: Environmental Quality
   Skill: Conceptual
   Question history: Previous edition, Chapter 4
   AACSB: Reflective Thinking
66) Purchasing power parity prices are used to construct GDP data that
   A) do not omit the underground economy.
   B) can be used to make more valid comparisons between one country and another.
   C) is a proper measure of economic welfare.
   D) adjust for differences in population.
   Answer: B

   Topic: Purchasing Power Parity Prices
   Skill: Conceptual
   Question history: Previous edition, Chapter 4
   AACSB: Reflective Thinking

67) If we compare the U.S. GDP and the Chinese GDP,
   A) real GDP per person is about the same in the two countries.
   B) U.S. real GDP per person is less than China's real GDP per person once we adjust for
      currency differences.
   C) China's real GDP per person is less than real GDP per person in the United States.
   D) real U.S. GDP per person was much larger than China's real GDP per person when
      purchasing power parity prices are used but is less than China's real GDP per person
      when exchange rate prices are used.
   Answer: C

   Topic: Purchasing Power Parity Prices
   Skill: Recognition
   Question history: Previous edition, Chapter 4
   AACSB: Reflective Thinking

68) The use of purchasing power parity prices
   A) decreases the real GDP per person statistics published by the International Monetary
      Fund.
   B) weakens the validity of cross country comparisons of economic welfare.
   C) increases the amount by which U.S. GDP is larger than that of any other nation.
   D) accounts for differences in the prices of the same goods in different countries when
      measuring real GDP.
   Answer: D

   Topic: Purchasing Power Parity Prices
   Skill: Conceptual
   Question history: Previous edition, Chapter 4
   AACSB: Reflective Thinking

69) Pollution is a by-product of some production processes, so on this count real GDP as measured
   A) is adjusted downward to take into account the pollution.
   B) is adjusted upward to take into account the expenditures that will be made in the future to
      clean up the pollution.
   C) tends to overstate economic welfare.
   D) tends to understate economic welfare.
   Answer: C

   Topic: Study Guide Question, Environmental Quality
   Skill: Conceptual
   Question history: Previous edition, Chapter 4
   AACSB: Reflective Thinking
70) Which of the following is NOT a reason that real GDP is a poor measure of a nation's economic welfare?
   A) Real GDP omits measures of political freedom.
   B) Real GDP does not take into account the value of people's leisure time.
   C) Real GDP does not include the underground economy.
   D) Real GDP overvalues household production.

Answer: D

71) Which of the following statements about the comparison between GDP in China and in the United States is correct?
   A) Using the exchange rate to value China's GDP in dollars shows that China's GDP per person exceeds the GDP per person in the United States.
   B) Using purchasing power parity prices to value China's GDP in dollars shows that China's GDP per person exceeds the GDP per person in the United States.
   C) China's GDP per person is higher using purchasing power parity prices rather than the exchange rate when valuing China's GDP in dollars.
   D) None of the above answers are correct because they are all false statements.

Answer: C

72) What we produce during our working time is _______ as part of GDP and the enjoyment we gain from our leisure time is _______ as part of GDP.
   A) included; not included
   B) included; included
   C) not included; included
   D) not included; not included

Answer: A
4 News Based Questions

"As the credit crisis unfolded over the past year, one of the few certainties in the global economy seemed to be China’s ability to plough on regardless of double-digit growth rates...The crisis has also focused on the need to update a growth model that...is still dependent on assembling goods for export without adding much value and on heavy industries that create pollution. Chinese companies have continued to find new foreign markets for their products...Several other factors point to a slowing property market...Production of steel, cement and air conditioners was down...Retail sales have risen by 23 per cent in each of the last two months."


1) According to the article, _______ are expected to contribute _______ to China’s real GDP in 2008.
   A) exports and consumption; positively
   B) consumption and government spending; negatively
   C) exports and investment; negatively
   D) rental income and investment; negatively

Answer: A
Topic: GDP
Skill: Conceptual
Question history: Previous edition, Chapter 4
AACS B: Communication

2) According to the article, _______ can be expected to _______ this year.
   A) exports; increase
   B) consumption; decrease
   C) imports; decrease
   D) net interest income; decrease

Answer: A
Topic: GDP
Skill: Conceptual
Question history: Previous edition, Chapter 4
AACS B: Communication

3) According to the article, _______ is expected to increase and add to China’s _______ component of GDP.
   A) retail sales; consumption
   B) retail sales; investment
   C) rental income; investment
   D) rental income; exports

Answer: A
Topic: GDP
Skill: Conceptual
Question history: Previous edition, Chapter 4
AACS B: Communication
Canada’s economy expanded by 0.1 percent in the second quarter—further evidence that the economy has stalled following a first quarter slip in gross domestic product. The second quarter figures fell well below forecasts of a 0.7 per cent growth in real GDP. Exports fell for the fourth consecutive quarter. The accumulating gloom is increasingly discouraging business investment. Consumer spending remains strong and corporate profits were at their highest since 2004. "The sources of strength in the second quarter are clearly unsustainable," said Sal Gautieri, senior economist at BMO capital markets.

Canada Avoids Fall into Recession, www.FT.com, by Christopher Mason, August 30, 2008

4) According to the article, the best description of Canada’s position in the business cycle is
   A) at a peak
   B) at a trough
   C) in an expansion
   D) in a recession

Answer: A

5) According to the article, ________ in ________ have contributed to Canada’s ________ change in real GDP.
   A) increases; consumption and exports; expected
   B) decreases; exports and investment; unexpected
   C) increases; consumption and investment; unexpected
   D) decreases; exports and government spending; expected

Answer: B

6) It is estimated that in 2007, Mexico had a population of 110 million and Brazil had a population of 190 million. At the same time, Mexico’s GDP was $1 trillion while Brazil’s was $1.31 trillion. These data show that
   A) Brazil had a healthier economy than did Mexico.
   B) Mexico’s GDP per person was lower than was Brazil’s GDP per person in 2007.
   C) Mexico’s GDP per person was $9090 in 2007.
   D) Brazil’s GDP per person was $5300 in 2007.

Answer: C
7) It is estimated that in 2007, Mexico had a population of 110 million and GDP of $1 trillion. In 2006, Mexico’s population was 104 million and GDP was $839 billion. Per GDP person ________ by ________ between 2006 and 2007 in Mexico.

A) increased; $1038
B) increased; 5 percent
C) decreased; $2013
D) decreased; 5 percent

Answer: A

Topic: GDP Growth Rate
Skill: Analytical
Question history: Previous edition, Chapter 4
AACSB: Analytical Skills

8) The following data describe Mexico’s economy in 2007.

- Government spending $210 billion
- Investment $210 billion
- Exports $272 billion
- Imports $283 billion
- GDP 1 trillion
- Population 110 million

From the data, we can conclude that ________ in Mexico in 2007.

A) Consumption totaled $591 billion
B) Net exports totaled –$11 billion.
C) GDP per person equalled $2000
D) Imports were the largest component of GDP

Answer: A

Topic: GDP
Skill: Analytical
Question history: Previous edition, Chapter 4
AACSB: Analytical Skills

9) The following data describe France’s economy in 2008.

- Consumption 234 billion euros
- Government expenditure 93 billion euros
- Investment 88 billion euros
- Exports 128 billion euros
- Imports 137 billion euros

From the data, we can conclude that in France

A) net exports totaled –11 billion euros.
B) GDP equaled 424 billion euros.
C) GDP equaled 680 billion euros.
D) Net exports totaled 265 billion euros.

Answer: A

Topic: GDP
Skill: Analytical
Question history: Previous edition, Chapter 4
AACSB: Analytical Skills
10) The following data are estimates describing Ireland’s economy in 2006 and 2007 (in millions of euros, in constant prices):

<table>
<thead>
<tr>
<th></th>
<th>2006</th>
<th>2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consumption</td>
<td>84,000</td>
<td>89,000</td>
</tr>
<tr>
<td>Government expenditure</td>
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<td>26,000</td>
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<tr>
<td>Investment</td>
<td>48,000</td>
<td>48,000</td>
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<tr>
<td>Exports</td>
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<td>151,000</td>
</tr>
<tr>
<td>Imports</td>
<td>123,000</td>
<td>128,000</td>
</tr>
<tr>
<td>Subsidies</td>
<td>1,800</td>
<td>1,900</td>
</tr>
<tr>
<td>Taxes</td>
<td>500</td>
<td>500</td>
</tr>
</tbody>
</table>

Ireland’s real GDP in 2007 was _______ million euros.

A) 442,000
B) 186,000
C) 188,400
D) 163,000

Answer: B
Topic: GDP
Skill: Analytical
Question history: Previous edition, Chapter 4
AACSB: Analytical Skills

11) The following data are estimates describing Ireland’s economy in 2006 and 2007 (in millions of euros, in constant prices):

<table>
<thead>
<tr>
<th></th>
<th>2006</th>
<th>2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consumption</td>
<td>84,000</td>
<td>89,000</td>
</tr>
<tr>
<td>Government expenditure</td>
<td>24,000</td>
<td>26,000</td>
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<tr>
<td>Investment</td>
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<td>48,000</td>
</tr>
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<td>Exports</td>
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<td>151,000</td>
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<td>128,000</td>
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<tr>
<td>Taxes</td>
<td>500</td>
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</tbody>
</table>

In 2007, Ireland’s net exports was _______ million euros.

A) 23,000
B) –23,000
C) 279,000
D) 149,100

Answer: A
Topic: GDP
Skill: Analytical
Question history: Previous edition, Chapter 4
AACSB: Analytical Skills
12) The following data are estimates describing Ireland’s economy in 2006 and 2007 (in millions of euros, in constant prices):

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Which of the following is true regarding Ireland’s economy?
   A) The change in GDP from 2006 to 2007 represented a peak in the business cycle.
   B) GDP decreased from 2006 to 2007.
   C) Net exports decreased from 2006 to 2007.
   D) Consumption was 48 percent of Ireland’s GDP in 2007.

Answer: D

Topic: GDP
Skill: Conceptual
Question history: Previous edition, Chapter 4
AACS: Analytical Skills

"Life expectancy is exceptionally high in Japan. Scores for political freedom and civil liberties approach those of peer countries in Europe...equality of opportunity is extremely weak. The country also possesses one of the longer working weeks.” Japan’s GDP was estimated to be $4.2 trillion (purchasing power parity) and the population was 127.4 million.

"Driven by its attractive climate, Brazil performs substantially better on Life Satisfaction than Material Wealth. High international demand for Brazil’s commodities and raw materials has produced a sustained economic expansion since 2004, which in turn has led to job creation, wage growth and relatively low inflation. Brazilians report that they control their own lives to a substantial degree.” Brazil’s GDP was estimated to be $1.7 trillion (purchasing power parity) and 190 million in 2006.

www.prosperity.com

13) According to the article, we can conclude that the standard of living
   A) is higher in Brazil because its citizens feel more control over their lives and have experienced job and wage growth.
   B) is higher in Japan because their life expectancy is longer.
   C) is higher in Japan because its GDP is higher.
   D) might be higher in Japan because it has a higher per capita real GDP but other factors such as Brazilians’ satisfaction with their lives and economic growth should be considered when determining economic well being.

Answer: D

Topic: GDP and Economic Welfare Comparisons
Skill: Conceptual
Question history: Previous edition, Chapter 4
AACS: Communication
14) According to the information, Japan’s real GDP per person
   A) is higher than Brazil’s and therefore we can definitely conclude that economic well-being is higher in Japan.
   B) is $33,000.
   C) is lower than Brazil’s, but its real GDP is higher which makes standard of living higher in Japan.
   D) cannot be expected to change much given the other factors affecting GDP growth including political freedom and life expectancy.

Answer: B

Topic: GDP and Economic Welfare Comparisons
Skill: Analytical
Question history: Previous edition, Chapter 4
AACS B: Analytical Skills

15) The United Nation’s Human Development Report (2006) ranked Norway first in its Human Development Index with GDP per person equal to $38,454. The United States, with GDP per person of $39,676, is ranked eighth. Which of the following could explain this ranking?
   A) Other factors, like life expectancy and education are higher in Norway.
   B) Norway has a lower GDP than the United State.
   C) The United States has a lower unemployment rate than does Norway.
   D) The United States has a higher population growth rate.

Answer: A

Topic: GDP and Economic Welfare Comparisons
Skill: Conceptual
Question history: Previous edition, Chapter 4
AACS B: Reflective Thinking

16) "German economic growth slowed... Economic growth slowed to 0.3 percent from 0.5 percent. Expansion was driven by exports... (and) household consumption added... to growth. As unemployment declines and disposable incomes increase, household spending may also gain momentum.


We can conclude that the German economy
   A) is at the peak of the business cycle.
   B) has entered the expansion phase of the business cycle.
   C) has slowed due to a decline in investment or government spending.
   D) is in the recession phase of the business cycle.

Answer: C

Topic: GDP
Skill: Conceptual
Question history: Previous edition, Chapter 4
AACS B: Communication
17) The data show Argentina’s GDP (using purchasing power parity) in billions of dollars.

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<tr>
<td>GDP($)</td>
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<td>255</td>
<td>277</td>
<td>274</td>
<td>294</td>
<td>324</td>
<td>340</td>
<td>333</td>
<td>338</td>
<td>330</td>
<td>300</td>
<td>333</td>
<td>373</td>
<td>420</td>
<td>470</td>
</tr>
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</table>

The data show that
A) Argentina’s economy was in a recession from 2004 through 2006.
B) Argentina’s economy was in a recession in 2001 and 2002.
C) GDP per person more than doubled between 1990 and 2006.
D) Argentina’s economy reached a peak in 1996.

Answer: B

Topic: Business Cycle
Skill: Analytical
Question history: Previous edition, Chapter 4
AACSB: Analytical Skills

18) The data show Argentina’s GDP (using purchasing power parity) in billions of dollars.

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The data show that
A) Argentina’s economy reached a peak in 1998.
B) GDP per person increased between 1990 and 2006.
C) Argentina’s potential GDP doubled between 1990 and 2006.
D) Argentina’s economy entered a recession in 2000.

Answer: A

Topic: Business Cycle
Skill: Analytical
Question history: Previous edition, Chapter 4
AACSB: Analytical Skills

19) The following data show Uruguay’s GDP using purchasing power parity in billions of dollars.

<table>
<thead>
<tr>
<th>Year</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP($)</td>
<td>26.1</td>
<td>25.8</td>
<td>23.3</td>
<td>24.3</td>
<td>27.9</td>
<td>30.1</td>
<td>33.9</td>
<td>37.2</td>
<td>40.2</td>
</tr>
</tbody>
</table>

Using the data, we can conclude that
A) Uruguay’s economy reached a peak in 2000.
B) GDP per person in Uruguay almost doubled between 2000 and 2008.
C) potential GDP in Uruguay doubled between 2000 and 2008.
D) Uruguay’s economy was entered a recession in 2008.

Answer: A

Topic: Business Cycle
Skill: Analytical
Question history: Previous edition, Chapter 4
AACSB: Analytical Skills
20) The following data show Uruguay’s GDP using purchasing power parity in billions of dollars.

<table>
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</table>

Using the data, we can conclude that
A) Uruguay’s economy did not change in Uruguay between 2000 and 2008.
C) potential GDP decreased in 2001.
D) Uruguay’s economy reached a peak in 2005.

Answer: B

Topic: Business Cycle
Skill: Analytical

Question history: Previous edition, Chapter 4
AACSB: Analytical Skills

21) The following data show Uruguay’s GDP using purchasing power parity in billions of dollars.

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<td>33.9</td>
<td>37.2</td>
<td>40.2</td>
</tr>
</tbody>
</table>

Using the data, we can conclude that
A) Uruguay’s economy entered a recession in 2005.
B) Uruguay’s standard of living increased steadily between 2000 and 2008.
C) potential GDP more than doubled between 2000 and 2008.
D) Uruguay’s economy reached a trough in 2002.

Answer: D

Topic: Business Cycle
Skill: Analytical

Question history: Previous edition, Chapter 4
AACSB: Analytical Skills

5 Essay Questions

1) Define and discuss GDP.

Answer: GDP is the market value of all final goods and services produced within a country in a given time period. Only final goods and services are included. Goods produced as intermediate goods are excluded. The goods and services must be produced within the time period under consideration and so sales of used goods are excluded. The goods and services also are those produced within the country, so production by the country's firms that takes place in a foreign nation is not included.

Topic: Gross Domestic Product
Skill: Recognition

Question history: Previous edition, Chapter 4
AACSB: Communication
2) How does the production of a U.S. firm located in France affect U.S. GDP? How does the production of a French firm located in Ohio affect U.S. GDP?
Answer: U.S. GDP includes all production in the United States, regardless of who owns the factors of production used. Therefore, the production by the U.S. firm in France won’t be counted in U.S. GDP because the production does not take place in the United States. However, the production by the French firm in the United States will be counted as part of U.S. GDP because the production has taken place in the United States.

*Topic: Gross Domestic Product*
*Skill: Conceptual*
*Question history: Previous edition, Chapter 4*
*AACSB: Communication*

3) Why are only final goods and services included in measuring GDP? Give examples to complete your answer.
Answer: We purposely leave intermediate goods or services out of our calculation of GDP so we don’t double count. Examples of this are not counting the tires produced by Firestone that are then sold to Ford to be placed on their new cars. If we counted the tires when they were produced by Firestone and then also counted them when they were part of the Ford, we would be double counting them.

*Topic: Final Good*
*Skill: Conceptual*
*Question history: Previous edition, Chapter 4*
*AACSB: Reflective Thinking*

4) Is every product produced in the United States included in U.S. gross domestic product?
Answer: No, not every product produced is included in U.S. GDP. For instance, goods produced as intermediate goods are excluded. Only final goods and services are included. In addition, GDP counts only goods traded in markets, so goods and services that people produce for their own use are excluded.

*Topic: Final Good*
*Skill: Conceptual*
*Question history: Previous edition, Chapter 4*
*AACSB: Reflective Thinking*

5) Define and distinguish between final goods and intermediate goods.
Answer: Final goods are those goods that are purchased by their final user. Essentially, these goods (and services) have been completed and do not need to go through further processes of completion. Examples of final goods include restaurant meals, lamps, railroad engines, and books. Intermediate goods and services are goods or services produced by one firm, bought by another, and then used as a component in the manufacture of another good or service. Basically, intermediate goods and services are used as a part of another good or service. Lumber used by a carpenter to build a table or paper used by a publisher to publish a book are examples of intermediate goods.

*Topic: Intermediate Goods and Services*
*Skill: Conceptual*
*Question history: Previous edition, Chapter 4*
*AACSB: Reflective Thinking*
6) Neither intermediate goods nor used goods are included in GDP. Explain why these expenditures are not included in GDP.

Answer: Intermediate goods and used goods are not included in the measurement of GDP because they do not represent final expenditures on goods and services produced within the relevant time period. Intermediate goods are inputs used in the production of final goods and services. To count them twice would be double counting and inflate the level of GDP. Used goods already have been counted in GDP during the year in which they were produced. They were not produced in the current time period and therefore are not included in GDP.

*Topic: Intermediate Goods and Used Goods*
*Skill: Conceptual*
*Question history: Previous edition, Chapter 4*
*AACSB: Reflective Thinking*

7) What are the categories of total expenditure?

Answer: There are four categories: Consumption expenditure, spending by households; investment, spending by firms to buy new capital equipment or add to inventories; government expenditures on goods and services, spending by all levels of the government to buy goods and services; and net exports of goods and services, which equals the exports of goods and services minus the imports of goods and services.

*Topic: Total Expenditure*
*Skill: Recognition*
*Question history: Previous edition, Chapter 4*
*AACSB: Reflective Thinking*

8) How do firms and households interact within the context of the circular flow model?

Answer: Households are the owners of the factors of production. Firms purchase these factors in the factor market. They use these factors to produce goods and services which are sold to households in the goods market. Households are paid for the services of the factors of production and use this income to pay for the goods and services.

*Topic: Circular Flow*
*Skill: Conceptual*
*Question history: Previous edition, Chapter 4*
*AACSB: Reflective Thinking*

9) What is the relationship shown by the circular flow among income, total expenditure, and GDP?

Answer: They are all equal. The value of production, which is GDP, equals income because firms pay factors (as income) all the revenue they receive from selling the goods and services they produce (GDP). Next, the revenue that firms receive from selling the goods and services they produce (GDP) is equal to what is spent as expenditures on the goods and services. (total expenditure).

*Topic: Circular Flow*
*Skill: Conceptual*
*Question history: Previous edition, Chapter 4*
*AACSB: Reflective Thinking*
10) Use the idea of the circular flow diagram to explain why the value of production equals total income equals total expenditure.

Answer: The basic point is that nothing escapes the system. Firms receive the value of their production in the form of revenue. With this revenue, they pay for the factors of production they hire and what is left over after paying their costs is profit, which is paid to the households that own the firms. Thus the value of production equals total income. These incomes flow from firms to households. Households then allocate their income to taxes, saving, and consumption. Taxes are collected and spent by the government. Saving by households is spent as investment by firms after being cycled through the banking system. Thus total expenditure equals the value of total income, which equals the value of production by firms.

**Topic:** Circular Flow  
**Skill:** Conceptual  
**Question history:** Previous edition, Chapter 4  
**AACSB:** Communication

11) What is the distinction between gross investment and net investment?

Answer: Gross investment is the total spending on capital goods. Net investment equals gross investment minus depreciation. From one year to the next, the capital stock increases by the amount of net investment.

**Topic:** Capital and Investment  
**Skill:** Recognition  
**Question history:** Previous edition, Chapter 4  
**AACSB:** Reflective Thinking

12) Explain how gross investment, depreciation, net investment, and the capital stock are related.

Answer: The change in the capital stock equals net investment and net investment equals gross investment minus depreciation.

**Topic:** Capital and Investment  
**Skill:** Conceptual  
**Question history:** Previous edition, Chapter 4  
**AACSB:** Reflective Thinking

13) What is the relationship between gross investment, net investment, and depreciation? Which measures the change in the capital stock?

Answer: Gross investment minus depreciation equals net investment. Gross investment is all the investment made during the year. Depreciation is the wear and tear on capital from its use and obsolescence. The "depreciation part" of gross investment goes to replace old, worn out capital and so net investment is the change in the capital stock.

**Topic:** Capital and Investment  
**Skill:** Conceptual  
**Question history:** Previous edition, Chapter 4  
**AACSB:** Reflective Thinking
14) Explain the relationship among the capital stock, gross investment, net investment, and depreciation.

Answer: The capital stock is the total quantity of plant, equipment, buildings and inventories. Some of this capital stock is always depreciating or wearing out. During a year a firm will purchase new capital. The amount of capital purchased is gross investment. The amount of gross investment minus the amount of depreciation during a year is net investment. So net investment is the change in the capital stock from one period to the next.

Topic: Capital Stock and Investment
Skill: Conceptual
Question history: Previous edition, Chapter 4
AACSB: Reflective Thinking

15) Explain the difference between the capital stock, gross investment, depreciation, and net investment.

Answer: The capital stock is the total quantity of plant, equipment, buildings, and inventories. Gross investment is the purchase of new capital. Depreciation is the wearing out and scrapping of capital. Net investment equals gross investment minus depreciation. The change in the capital stock from one period to the next equals net investment.

Topic: Capital and Investment
Skill: Conceptual
Question history: Previous edition, Chapter 4
AACSB: Reflective Thinking

16) Define gross investment and net investment. Discuss the relationship between gross investment and net investment.

Answer: Gross investment is the total amount spent on new capital goods to increase the quantity of capital and replace the depreciated capital. Net investment is the amount spent on new capital that exceeds the value of the depreciated capital or, in other words, net investment equals gross investment minus depreciation. Net investment is equal to the change in the capital stock.

Topic: Investment
Skill: Recognition
Question history: Previous edition, Chapter 4
AACSB: Reflective Thinking

17) "When a company’s depreciation is larger than its gross investment, net investment becomes negative and the firm’s capital stock decreases." Is the previous statement correct or incorrect? Explain your answer.

Answer: The statement is correct. Net investment equals gross investment minus depreciation. If depreciation is larger than gross investment, net investment will be negative. Net investment is the change in the capital stock, and so the company’s capital stock decreases. Essentially, because depreciation is larger than the company’s gross investment, the company is not buying enough capital to replace the capital that depreciated. As a result, the total amount of the company's capital decreases.

Topic: Investment
Skill: Conceptual
Question history: Previous edition, Chapter 4
AACSB: Reflective Thinking
18) Investment, as included in GDP, consists of what?

Answer: Investment is the purchase of new capital goods such as tools, instruments, machines, buildings, and additions to inventories. Investment does not include the purchase or sale of stocks and bonds.

Topic: Investment
Skill: Recognition
Question history: Modified 10th edition
AACSB: Reflective Thinking

19) How are changes in inventory treated in GDP?

Answer: Changes in inventory are part of the investment component of GDP. So, if Dell produces 100,000 computers this year and sells 95,000, the 5,000 unsold computers that are added to Dell’s inventory are part of the investment component of GDP for this year.

Topic: Expenditure Approach, Investment
Skill: Conceptual
Question history: Previous edition, Chapter 4
AACSB: Reflective Thinking

20) "To calculate GDP, economists begin with total income earned and then subtract total expenditure by the four sectors of the economy.” Is the previous sentence true or false? Explain your answer.

Answer: The sentence is false. To calculate GDP, economists can begin with total income and then make a few adjustments but they do not subtract total expenditure. Alternatively, economists can sum total expenditure by the economy’s four sectors, but this summation is GDP.

Topic: Measuring GDP
Skill: Conceptual
Question history: Previous edition, Chapter 4
AACSB: Reflective Thinking

21) List the components of the expenditure approach to measuring GDP.

Answer: The expenditure approach measures GDP by adding final expenditures, so the components are personal consumption expenditure, gross private investment, government expenditures on goods and services, and net exports.

Topic: Expenditure Approach
Skill: Recognition
Question history: Previous edition, Chapter 4
AACSB: Reflective Thinking

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22) List and compare the four components of the expenditure approach to calculating GDP.

Answer: The 4 parts can be summarized according to the formula GDP = C + I + G + (X − M). The first part, C, is consumption expenditure, which measures household spending and is the largest component accounting for around 70 percent of GDP. The next category, I, is investment and refers to the purchase of new capital, the purchase of new homes and changes in inventories. This fluctuates a great deal but generally accounts for 15 to 20 percent of GDP. Next is G, which government expenditure on goods and services. This component includes purchases by all levels of government on new goods and services and is about 20 percent of GDP. The final category, (X − M), is net exports. In it, exports are added and imports are subtracted. This component is typically negative in the United States because we typically run a trade deficit. It is generally around −1 to −5 percent or so of GDP.

Topic: Expenditure Approach to GDP
Skill: Conceptual
Question history: Previous edition, Chapter 4
AACSB: Reflective Thinking

23) Explain how GDP is measured according to the expenditure and income approaches.

Answer: GDP is measured using the expenditure approach and the income approach. The expenditure approach uses the streams of spending and adds together the total expenditure, or spending, on final goods and services. Thus the expenditure approach calculates the sum of consumption expenditure, investment, government expenditure on goods and services, and net exports. The income approach uses another of the circular flows to calculate GDP. The income approach adds together all sources of income and then incorporates a few additional adjustments. Thus the income approach calculates the sum of compensation of employees, net interest, rental income of persons, corporate profits, and proprietors’ income. The sum is “net domestic product at factor cost.” To change this sum to GDP, which is calculated at market prices rather than factor costs, and which is the gross product rather than net product, indirect taxes are added and subsidies subtracted and then depreciation is added. Any statistical discrepancy is added to (or subtracted from) GDP calculated using the income approach.

Topic: Expenditure Approach and Income Approach
Skill: Conceptual
Question history: Modified 10th edition
AACSB: Communication

24) How does the income approach measure GDP?

Answer: The incomes approach adds the compensation of employees, net interest, rental income, corporate profits and proprietors’ income to give net domestic income at factor cost. Then indirect taxes and depreciation are added. Finally, subsidies are subtracted to obtain GDP.

Topic: Income Approach
Skill: Recognition
Question history: Previous edition, Chapter 4
AACSB: Reflective Thinking
25) What must be done to net domestic product at factor cost in order to transform it to gross domestic product? Explain why these adjustments are necessary.

Answer: Several adjustments must be made to net domestic product at factor cost in order to set it equal to GDP. First, indirect taxes must be added and subsidies must be subtracted. These changes are necessary because GDP is measured using market prices whereas net domestic product at factor cost measures what the goods and services cost to produce. The price can be different than the cost when there are taxes and subsidies present. Thus taxes must be added to the cost and subsidies subtracted in order to determine the price that was actually paid. (For instance, a DVD might cost $20 but a $1 sales tax makes the price $21.) Then, the second adjustment is that depreciation also needs to be added. Depreciation is the wear and tear on capital when it is used and when it becomes obsolete. GDP includes expenditure on investment and some investment is used to replace the capital stock that has depreciated. So, when calculating GDP using the income approach, depreciation must be included. But depreciation is not included in net domestic product at factor cost because that amount includes only payments made (as income) to the inputs that helped produce the products and no payment is made for the depreciation of capital. So the addition of depreciation (as well as the adjustments for taxes and subsidies) is necessary in order to convert net domestic product at factor cost into GDP.

Topic: Income Approach, Adjustments
Skill: Recognition
Question history: Previous edition, Chapter 4
AACSB: Reflective Thinking

26) Several adjustments must be made to net domestic product at factor cost in order to calculate GDP. One of these adjustments is adding depreciation. What is depreciation and why must it be added?

Answer: Depreciation is the wear and tear of capital when it is used and when it becomes obsolete. GDP includes expenditure on investment and some investment is used to replace the capital stock that has depreciated. So, when calculating GDP using the income approach, depreciation must be included. But depreciation is not included in net domestic product at factor cost because that includes only payments made (as income) to the inputs that helped produce the products and no payment is made for the depreciation of capital. Hence depreciation must be added to net domestic product at factor cost in order to calculate GDP.

Topic: Income Approach, Depreciation
Skill: Recognition
Question history: Previous edition, Chapter 4
AACSB: Reflective Thinking
27) What is the difference between real and nominal GDP and why do economists make this distinction?

Answer: Real GDP is a measure of the final goods and services produced in a year valued at constant prices. Nominal GDP is the final goods and services produced in a year valued at the prices that existed during the year. Economists make the distinction between real GDP and nominal GDP because nominal GDP changes for two reasons: When the production of goods and services changes and when the prices of the goods and services change. Economists want to be able to distinguish between changes brought about by production changes and changes brought about by price changes. Real GDP allows economists to make this distinction. In particular, by using prices that are constant, a change in real GDP represents a change in the production of goods and services and factors out the change in prices. Thus real GDP removes the effect from changes in prices and thereby reveals the change in the underlying production of goods and services.

*Topic: Real and Nominal GDP*
*Skill: Conceptual*
*Question history: Previous edition, Chapter 4*
*AACSB: Analytical Skills*

28) Is it possible for nominal GDP to increase while real GDP does not change?

Answer: Yes, it is possible for nominal GDP to increase while real GDP does not change. Nominal GDP changes if either prices or production change, while real GDP changes only if production changes. If production does not change while the prices of the goods and services increase, real GDP does not change while nominal GDP increases.

*Topic: Real and Nominal GDP*
*Skill: Conceptual*
*Question history: Previous edition, Chapter 4*
*AACSB: Analytical Skills*

29) Can nominal GDP ever be less than real GDP?

Answer: Yes, nominal GDP can be less than real GDP. If prices generally fall from one period to the next, then nominal GDP is less than real GDP. However, in the U.S. economy, because prices generally rise, nominal GDP typically is greater than real GDP (except in the base period.) But, there is no economic law that states that prices must generally rise and so there is no necessity for nominal GDP to be larger than real GDP.

*Topic: Real and Nominal GDP*
*Skill: Conceptual*
*Question history: Previous edition, Chapter 4*
*AACSB: Analytical Skills*

30) What is the relationship between actual and potential real GDP?

Answer: Real GDP equals potential GDP when all resources are fully employed and there are no shortages that lead to inflation. Real GDP can be greater than potential GDP and can be less than potential GDP. During a business cycle, real GDP cycles around potential GDP. During an expansion, real GDP rises above potential GDP and during a recession real GDP falls below potential GDP.

*Topic: Actual and Potential GDP*
*Skill: Recognition*
*Question history: Modified 10th edition*
*AACSB: Reflective Thinking*
31) Explain the relationship between real GDP and potential GDP during the two phases of the business cycle.

Answer: During an expansion the level of real GDP eventually surpasses potential GDP, reaches a peak and subsequently falls below potential GDP during a recession eventually reaching a trough.

*Topic: Actual and Potential GDP*
*Skill: Conceptual*
*Question history: Previous edition, Chapter 4*
*ACSB: Reflective Thinking*

32) Explain the relationship between potential GDP and real GDP in the United States since the early 1960s. You do not need to tell what happened during any specific year; just describe the general relationship.

Answer: Potential GDP has grown over the period, albeit at a slower rate over the past 3 decades, while the level of real GDP has fluctuated around potential GDP throughout.

*Topic: Actual and Potential GDP*
*Skill: Conceptual*
*Question history: Previous edition, Chapter 4*
*ACSB: Reflective Thinking*

33) What is a business cycle?

Answer: The business cycle is the recurrent but irregular upward and downward movements in production and jobs. A downward movement is called a recession and an upward movement is called an expansion. At the top of the cycle, when an expansion gives way to a recession, is a peak. At the bottom of the cycle, when a recession gives way to an expansion, is a trough.

*Topic: Business Cycle*
*Skill: Recognition*
*Question history: Previous edition, Chapter 4*
*ACSB: Reflective Thinking*

34) List and explain the two phases and two turning points of the business cycle.

Answer: The economy is defined as being an expansion when real GDP is increasing and in a recession when real GDP decreases for at least two consecutive quarters. Between expansion and recession the economy reaches a peak defined as a local maximum in the level of real GDP. A trough is the opposite of a peak where real GDP hits a local minimum as the economy goes from being in a recession to being in an expansion.

*Topic: Business Cycle*
*Skill: Conceptual*
*Question history: Previous edition, Chapter 4*
*ACSB: Reflective Thinking*

35) What is a recession?

Answer: A recession is a period of time during which real GDP decreases, so that the growth rate of real GDP is negative, for at least two successive quarters. A recession occurs after a peak in the business cycle and ends before a trough in the business cycle. During a recession, real GDP falls below potential GDP.

*Topic: Business Cycle*
*Skill: Recognition*
*Question history: Previous edition, Chapter 4*
*ACSB: Reflective Thinking*
36) Explain the business cycle by describing the phases and turning points.

   Answer: The business cycle has two phases, the expansion where GDP is increasing and the recession where GDP is declining for at least two consecutive quarters. There are two turning points, the peak, where an expansion ends and a recession begins, and the trough, where a recession ends and an expansion begins.

   Topic: Business Cycle
   Skill: Recognition
   Question history: Previous edition, Chapter 4
   AACSB: Reflective Thinking

37) Why does real GDP have limitations in determining economic welfare?

   Answer: First economic welfare is a broad concept of economic well-being that entails all goods and services not just those measured by GDP. These include production in the home and within the underground economy. Second, it includes items such as good health, long life expectancy and leisure time are all aspects that are highly desirable and count for economic welfare but are not measured by GDP. Lastly, environmental quality is highly desired yet real GDP growth could actually reduce the quality of the environment. So for all these reasons, economic growth is not totally determined by real GDP.

   Topic: Economic Welfare Comparisons
   Skill: Conceptual
   Question history: Previous edition, Chapter 4
   AACSB: Reflective Thinking

38) Explain how our economic welfare depends upon our level of real GDP per person but there might not be a one-to-one relationship between economic welfare and real GDP per person. Give examples of things that can effect one but not the other.

   Answer: Although GDP has a significant impact on our economic welfare, it is not a perfect measure of economic welfare. GDP omits some factors that affect our economic welfare. GDP does not include household production, all the tasks performed around the house. It omits underground production, the part of the economy hidden from the government. Real GDP does not include the value of people’s leisure time. And, GDP does not make allowances for environmental quality, health and life expectancy, or political freedom and social justice. All of these factors influence the quality of our life and hence our economic welfare. Indeed, occasionally a change will affect GDP and economic welfare in different directions. For instance, if people decide they want more leisure and hence retire early, GDP will decrease because fewer people are working, but economic welfare will increase. Or, if there is an increase in production that creates massive amounts of pollution, GDP increases even though economic welfare likely decreases.

   Topic: Economic Welfare Comparisons
   Skill: Conceptual
   Question history: Previous edition, Chapter 4
   AACSB: Communication
39) "If country A has a higher level of real GDP per person than country B, then people in Country A must enjoy a higher standard of economic welfare than people in Country B." Is this statement true or false and explain your answer.

Answer: The statement is false. Factors other than real GDP per person affect economic welfare. For instance, factors such as household production, underground production, leisure time, and environmental quality all affect economic welfare and all are omitted from real GDP per person. In addition, economic welfare is influenced by health and life expectancy as well as by the nation's political freedom and social justice, none of which is measured by real GDP per person. Although real GDP per person is an important factor in determining a country's economic welfare, it is not the only factor.

Topic: Economic Welfare Comparisons
Skill: Conceptual
Question history: Previous edition, Chapter 4
AACSB: Communication

40) List and discuss various types of goods and services omitted from measured GDP.

Answer: Household production, such as preparing meals and taking care of children, are productive activities but do not involve market transactions. Therefore, household production is omitted as part of GDP. Underground production, such as working for cash to avoid taxes or engaging in illegal activities, are not reported to the government and hence are not counted as part of GDP. Leisure time and preserving and improving the natural environment are not production per se but are clearly economic goods. They are not counted as part of GDP because it is hard to quantify and put a monetary value on them.

Topic: Omissions from GDP
Skill: Conceptual
Question history: Previous edition, Chapter 4
AACSB: Communication

41) What would happen to measured GDP if more people started hiring workers to do house chores such as cooking and cleaning?

Answer: GDP is the value of the final goods and services that are produced in an economy over a specified time period. However, GDP, as measured, does not include the value of household production people do for themselves around their homes. Therefore if you wash your car at your home or apartment, the value of the car washing is not included in GDP. However if you hired someone to wash your car at your home or apartment, the value of the car washing would be included in GDP. Thus if more people started hiring workers to do household chores, measured GDP would increase.

Topic: Household Production
Skill: Conceptual
Question history: Previous edition, Chapter 4
AACSB: Communication
42) What is “underground production”? Is it included in GDP?
Answer: Underground production is the production of goods and services that remain hidden from the government. Underground production includes the production of illegal goods and services and the production of legal goods and services but in a way that avoids taxes or regulations. Underground production is not included in GDP.

Topic: GDP and Underground Economic Activity
Skill: Recognition
Question history: Previous edition, Chapter 4
AACS: Reflective Thinking

43) Explain how underground economic activity affects measurement of GDP.
Answer: The underground economy are transactions hidden from the government, either because they are illegal or to avoid taxes. Because the underground economy is hidden from the government, it is not included in GDP and so GDP is smaller than it otherwise would be.

Topic: GDP and Underground Economic Activity
Skill: Conceptual
Question history: Previous edition, Chapter 4
AACS: Reflective Thinking

44) While studying with your friend, your friend states, “Our leisure time increases GDP but lowers our economic welfare because it reduces the amount of goods and services we can consume.” Is your friend’s statement correct?
Answer: Your friend’s assertion is incorrect on two counts. First, leisure time does not increase GDP. Indeed, by taking time away from production, leisure time decreases GDP. Second, leisure time increases our economic welfare. People enjoy their leisure time and therefore having more leisure time raises their economic welfare.

Topic: GDP and Leisure Time
Skill: Conceptual
Question history: Previous edition, Chapter 4
AACS: Reflective Thinking

45) If you buy a new water skis and other new equipment for $2,500 and take a week off of your job, where you earn $1,000 a week, to go water skiing. The equipment you purchased was all produced in the United States. You think that the week was worth $4,000. As a result of your vacation, GDP changes by how much?
Answer: GDP changes by only the $2,500 you spent on the water skis and other equipment.

Topic: GDP and Leisure Time
Skill: Conceptual
Question history: Previous edition, Chapter 4
AACS: Reflective Thinking
6 Numeric and Graphing Questions

1) Assume a small nation has the following statistics: its consumption expenditure is $15 million, investment is $2 million, government purchases of goods and services is $1 million, exports of goods and services to foreigners is $1 million, and imports of goods and services from foreigners is $1.5 million. Calculate this nation's GDP.

Answer: The nation's GDP equals the sum of consumption expenditure, investment, government purchases of goods and services, and net exports of goods and services, where net exports of goods and services equals exports of goods and services minus imports of goods and services. So, GDP = $15 million + $2 million + $1 million + $1 million - $1.5 million = $17.5 million.

Topic: Expenditure Approach
Skill: Analytical
Question history: Previous edition, Chapter 4
AACSB: Analytical Skills

<table>
<thead>
<tr>
<th>Item</th>
<th>Billions of dollars</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consumption expenditure</td>
<td>6,258</td>
</tr>
<tr>
<td>Investment</td>
<td>1,623</td>
</tr>
<tr>
<td>Government expenditure on goods and services</td>
<td>1,630</td>
</tr>
<tr>
<td>Exports of goods and services</td>
<td>998</td>
</tr>
<tr>
<td>Imports of goods and services</td>
<td>1,252</td>
</tr>
</tbody>
</table>

2) The table above gives the values of different expenditures in the United States during 1999. Answer the following questions about the United States.
   a) What was the value of net exports of goods and services in 1999?
   b) What was (nominal) GDP equal to in 1999?
   c) What was the (nominal) value of total production equal to in 1999?

Answer: a) Net exports of goods and services equals the value of exports of goods and services, $998 billion, minus the value of imports of goods and services, $1,252 billion, or -$254 billion.
   b) GDP equals the sum of consumption expenditure, $6,258, plus investment, $1,623, plus government expenditure on goods and services, $1,630, plus net exports, -$254, or $9,257 billion.
   c) The value of total production equals the value of GDP, so total production was $9,257 billion in 1999.

Topic: Expenditure Approach
Skill: Analytical
Question history: Previous edition, Chapter 4
AACSB: Analytical Skills

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3) On January 1, 2010, United Delivery had trucks valued at $1.3 million. During 2010, United Delivery purchased new trucks valued at $500,000. If the value of the trucks on December 31, 2010 was $1.5 million, what is the amount of its net investment and its depreciation during 2010?

Answer: Net investment is the change in the capital stock from one period to the next. For United Delivery, net investment equals $1.5 million − $1.3 million = $200,000. Net investment also equals gross investment minus depreciation, so depreciation equals gross investment minus net investment. Gross investment, the total amount spent on new capital equipment, was $500,000. Net investment was calculated to be $200,000. Therefore depreciation equals $500,000 − $200,000 = $300,000.

Topic: Capital Stock and Investment
Skill: Analytical
Question history: Modified 10th edition
AACSB: Analytical Skills

4) Using a graph, draw and label the phases and turning points of the business cycle.

Answer:

The figure shows a business cycle.

Topic: Business Cycle
Skill: Recognition
Question history: Previous edition, Chapter 4
AACSB: Analytical Skills

7 True or False

1) When IBM, an American firm, produces computer chips in another country, this production is not included in U.S. GDP because the production did not take place in the United States.

Answer: TRUE

Topic: Gross Domestic Product
Skill: Conceptual
Question history: Previous edition, Chapter 4
AACSB: Reflective Thinking
2) The circular flow diagram shows that the flow of payments to the factors used to produce goods and services exceeds the flow of payments for final goods and services.

Answer: FALSE
Topic: Circular Flow
Skill: Conceptual
Question history: Previous edition, Chapter 4
AACS: Reflective Thinking

3) The circular flow diagram shows only the aggregate expenditures measure of GDP.

Answer: FALSE
Topic: Circular Flow, Aggregate Expenditures
Skill: Conceptual
Question history: Previous edition, Chapter 4
AACS: Reflective Thinking

4) The circular flow shows that aggregate spending is larger than aggregate income because people save.

Answer: FALSE
Topic: Expenditure Equals Income
Skill: Conceptual
Question history: Modified 10th edition
AACS: Reflective Thinking

5) When gross investment is greater than depreciation, then the nation’s capital stock increased.

Answer: TRUE
Topic: Capital and Investment
Skill: Analytical
Question history: Previous edition, Chapter 4
AACS: Reflective Thinking

6) Net investment equals gross investment minus depreciation.

Answer: TRUE
Topic: Net Investment
Skill: Recognition
Question history: Previous edition, Chapter 4
AACS: Reflective Thinking

7) If depreciation exceeds gross investment, net investment is negative.

Answer: TRUE
Topic: Net Investment
Skill: Conceptual
Question history: Previous edition, Chapter 4
AACS: Reflective Thinking

8) The expenditure approach to measuring GDP includes firms’ spending on wages.

Answer: FALSE
Topic: Expenditure Approach
Skill: Recognition
Question history: Previous edition, Chapter 4
AACS: Reflective Thinking

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9) Intermediate goods and services are one of the largest components of the expenditure approach to measuring GDP.
   Answer: FALSE
   Topic: Expenditure Approach
   Skill: Recognition
   Question history: Previous edition, Chapter 4
   AACS: Reflective Thinking

10) To calculate GDP using the expenditure approach, in part it is necessary to add exports and subtract imports.
    Answer: TRUE
    Topic: Expenditure Approach, Net Exports
    Skill: Recognition
    Question history: Previous edition, Chapter 4
    AACS: Reflective Thinking

11) To calculate GDP when using the income approach, you must add indirect business taxes and depreciation.
    Answer: TRUE
    Topic: Income Approach
    Skill: Conceptual
    Question history: Previous edition, Chapter 4
    AACS: Reflective Thinking

12) The largest component of income is proprietors' income.
    Answer: FALSE
    Topic: Income Approach, Compensation of Employees
    Skill: Recognition
    Question history: Previous edition, Chapter 4
    AACS: Reflective Thinking

13) A productivity growth slowdown can be shown as year-to-year fluctuations of real GDP around potential GDP.
    Answer: FALSE
    Topic: Productivity Growth Slowdown
    Skill: Conceptual
    Question history: Previous edition, Chapter 4
    AACS: Reflective Thinking

14) Real GDP fluctuates from year to year but is always below potential GDP.
    Answer: FALSE
    Topic: Real and Potential GDP
    Skill: Recognition
    Question history: Previous edition, Chapter 4
    AACS: Reflective Thinking
15) A business cycle is the pattern of short-run upward and downward movements in production and jobs.
   Answer: TRUE
   Topic: Business Cycle
   Skill: Recognition
   Question history: Previous edition, Chapter 4
   AACSB: Reflective Thinking

16) Phases and turning points of the business cycle are expansion, peak, recession and trough.
   Answer: TRUE
   Topic: Business Cycle
   Skill: Recognition
   Question history: Previous edition, Chapter 4
   AACSB: Reflective Thinking

17) The business cycle progresses from an expansion to a peak to a recession and then to a trough.
   Answer: TRUE
   Topic: Business Cycle
   Skill: Recognition
   Question history: Previous edition, Chapter 4
   AACSB: Reflective Thinking

18) A recession occurs when real GDP decreases for at least 6 months.
   Answer: TRUE
   Topic: Business Cycle
   Skill: Recognition
   Question history: Previous edition, Chapter 4
   AACSB: Reflective Thinking

19) An expansion ends when the economy hits a trough and then enters a recession.
   Answer: FALSE
   Topic: Business Cycle
   Skill: Recognition
   Question history: Previous edition, Chapter 4
   AACSB: Reflective Thinking

20) To measure economic welfare, one needs only to measure real GDP.
    Answer: FALSE
    Topic: Economic Welfare
    Skill: Conceptual
    Question history: Previous edition, Chapter 4
    AACSB: Reflective Thinking

21) The omission of household production causes actual economic production to be underestimated.
    Answer: TRUE
    Topic: GDP and Household Production
    Skill: Conceptual
    Question history: Previous edition, Chapter 4
    AACSB: Reflective Thinking
22) Household production is not measured in the GDP.
   Answer: TRUE
   Topic: Household Production
   Skill: Recognition
   Question history: Previous edition, Chapter 4
   AACSB: Reflective Thinking

23) All economic activity in the underground economy represents the production of illegal goods and services.
   Answer: FALSE
   Topic: GDP and Underground Economic Activity
   Skill: Recognition
   Question history: Previous edition, Chapter 4
   AACSB: Reflective Thinking

24) The underground economy means that GDP will overstate the actual level of economic welfare.
   Answer: FALSE
   Topic: GDP and Underground Economic Activity
   Skill: Conceptual
   Question history: Previous edition, Chapter 4
   AACSB: Reflective Thinking

25) If a measure of real GDP could include the value of leisure time, measured real GDP would increase.
   Answer: TRUE
   Topic: GDP and Leisure Time
   Skill: Conceptual
   Question history: Previous edition, Chapter 4
   AACSB: Reflective Thinking

26) The fact that prices for similar goods differ across nations complicates comparisons of real GDP across countries.
   Answer: TRUE
   Topic: GDP and Purchasing Power Parity Prices
   Skill: Conceptual
   Question history: Previous edition, Chapter 4
   AACSB: Reflective Thinking
8 Extended Problems

<table>
<thead>
<tr>
<th>Item</th>
<th>Amount (millions of dollars)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wages paid</td>
<td>100</td>
</tr>
<tr>
<td>Consumption expenditure</td>
<td>120</td>
</tr>
<tr>
<td>Taxes</td>
<td>40</td>
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<tr>
<td>Transfer payments</td>
<td>15</td>
</tr>
<tr>
<td>Profits</td>
<td>35</td>
</tr>
<tr>
<td>Investment</td>
<td>30</td>
</tr>
<tr>
<td>Government expenditure</td>
<td>50</td>
</tr>
<tr>
<td>Exports</td>
<td>30</td>
</tr>
<tr>
<td>Imports</td>
<td>40</td>
</tr>
</tbody>
</table>

1) The table above shows the transaction in Pinkland last year:
   a) Calculate Pinkland’s GDP.
   b) What approach did you use to make this calculation?

   Answer: a) \( GDP = C + I + G + (X - M) = $120 + $30 + $35 + ($30 - $40) = $190 \) million.
   b) The expenditure approach is used, which measures GDP as \( C + I + G + (X - M) \).

   Topic: Expenditure Approach
   Skill: Analytical
   Question history: Previous edition, Chapter 4
   AACSB: Analytical Skills

<table>
<thead>
<tr>
<th>Year</th>
<th>Real GDP (trillions of yen)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1991</td>
<td>478</td>
</tr>
<tr>
<td>1992</td>
<td>483</td>
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<td>1998</td>
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<td>1999</td>
<td>520</td>
</tr>
<tr>
<td>2000</td>
<td>534</td>
</tr>
<tr>
<td>2001</td>
<td>536</td>
</tr>
</tbody>
</table>

   a) Draw a figure with Japan’s real GDP from 1991 to 2001.
   b) In the previous 30 years, the growth rate of Japan’s potential GDP was 6 percent a year. On your graph, show the path that potential GDP would have followed if its GDP in 1991 was equal to potential GDP and the growth rate of potential GDP had been maintained in 1991 -2001.
   c) Show the Lucas wedge on your figure.
Answer:

a) See the figure above.

b) Potential GDP is illustrated in the figure above. Potential GDP in 1991 is assumed to equal real GDP in 1991. Then, projected GDP levels for subsequent years are calculated by multiplying potential GDP in the previous year by 1.06. For example, in 1992, potential GDP equals 478 trillion yen × 1.06 = 507 trillion yen; potential GDP in 1993 equals 507 trillion yen × 1.06 = 537 trillion yen; and so on.

c) The figure above shows the Lucas wedge as the darkened area. The Lucas wedge shows that the loss of output accumulated in Japan in 1991-2001 that resulted from a slowdown in the growth rate of real GDP was 1,575 trillion yen.

9 Appendix: Graphs in Macroeconomics

1) To see how variables evolve over time we use
   A) a scatter graph.
   B) an evolution plot.
   C) a cross-section plot.
   D) a time-series graph.

   Answer: D

   Topic: Time-Series Graphs
   Skill: Recognition
   Question history: Previous edition, Chapter 1
   AACSB: Analytical Skills
2) The figure above shows a
   A) two-variable time-series graph.
   B) time-series graph.
   C) scatter diagram.
   D) regression.

Answer: B

Topic: Time-Series Graphs
Skill: Recognition
Question history: Previous edition, Chapter 1
AACSB: Analytical Skills

3) On a time-series graph, time is typically shown
   A) as an area.
   B) along the x-axis.
   C) along the y-axis.
   D) as an implicit variable held constant.

Answer: B

Topic: Time-Series Graphs
Skill: Recognition
Question history: Previous edition, Chapter 1
AACSB: Analytical Skills
4) The horizontal axis on a time-series graph
   A) measures the variable being graphed.
   B) measures units of time such as years.
   C) runs parallel to the y-axis.
   D) measures how the variable being graphed changes.

   Answer: B
   Topic: Time-Series Graphs
   Skill: Conceptual
   Question history: Previous edition, Chapter 1
   AACSB: Analytical Skills

5) The figure above shows a time-series graph. The horizontal axis measures _______ and the vertical axis measures _______.
   A) time; x-values
   B) time; the variable of interest
   C) the variable of interest; time
   D) y-values; the variable of interest

   Answer: B
   Topic: Time-Series Graphs
   Skill: Recognition
   Question history: Previous edition, Chapter 1
   AACSB: Analytical Skills
6) A trend is
   A) a measure of closeness on a scatter diagram.
   B) a general tendency for a variable to rise or fall.
   C) the maximum value of a variable.
   D) the minimum value of a variable.
Answer: B

Topic: Time-Series Graphs
Skill: Recognition
Question history: Previous edition, Chapter 1
AACSB: Analytical Skills

7) A trend shows
   A) the degree of correlation between two variables.
   B) the general tendency for a variable to rise or fall.
   C) the scale used to measure to variables.
   D) the increases in one variable.
Answer: B

Topic: Time-Series Graphs
Skill: Recognition
Question history: Previous edition, Chapter 1
AACSB: Analytical Skills

8) Trend refers to
   A) the scale used on the x- and y-coordinates.
   B) increases but not decreases of a variable.
   C) decreases but not increases of a variable.
   D) a general tendency for a variable to rise or fall.
Answer: D

Topic: Time-Series Graphs
Skill: Recognition
Question history: Previous edition, Chapter 1
AACSB: Analytical Skills

9) Which of the following is TRUE regarding a trend?
   I. A cross section graph shows trends.
   II. A time-series graph shows trends.
   III. A scatter plot shows trends over time.
      A) I
      B) II
      C) I and II
      D) II and III
Answer: B

Topic: Time-Series Graphs
Skill: Conceptual
Question history: Previous edition, Chapter 1
AACSB: Analytical Skills
10) Which type of graph is used to identify trends?
   A) time-series
   B) scatter diagram
   C) cross-section
   D) None of the above answers is correct.

   Answer: A
   Topic: Time-Series Graphs
   Skill: Recognition
   Question history: Previous edition, Chapter 1
   AACSB: Analytical Skills

11) Which of the following is correct about a time-series graph?
   I. The x-axis measures time.
   II. A time-series graph can reveal if there is a trend in the variable.
   A) only I
   B) only II
   C) both I and II
   D) neither I nor II

   Answer: C
   Topic: Time-Series Graphs
   Skill: Recognition
   Question history: Previous edition, Chapter 1
   AACSB: Analytical Skills

12) A time-series graph reveals whether there is a _______ which represents ________.
    A) trend in a variable; a general tendency for the variable to rise or fall
    B) relationship between two variables; a cross-section graph
    C) trend in a variable; unrelated variables
    D) relationship between two variables; a trend in a variable

   Answer: A
   Topic: Time-Series Graphs
   Skill: Recognition
   Question history: Previous edition, Chapter 1
   AACSB: Analytical Skills

13) A time-series graph showing total production in Japan from 1960 to 2010 shows a positive trend. It is the case that total production
    A) fell every year between 1960 and 2010.
    B) rose every year between 1960 and 2010.
    C) was lower in 2010 than in 1960.
    D) was higher in 2010 than in 1960.

   Answer: D
   Topic: Time-Series Graphs
   Skill: Conceptual
   Question history: Modified 10th edition
   AACSB: Analytical Skills
14) Using the above figure, during which month was the price for crude oil the highest?
   A) July  
   B) December  
   C) May  
   D) October  
   Answer: B  
   Topic: Time-Series Graphs  
   Skill: Analytical  
   Question history: Previous edition, Chapter 1  
   AACSB: Analytical Skills

15) Using the above figure, during which of the following periods does the price of crude oil have a downward trend?
   A) May to July  
   B) May to November  
   C) July to October  
   D) October to December  
   Answer: C  
   Topic: Time-Series Graphs  
   Skill: Analytical  
   Question history: Previous edition, Chapter 1  
   AACSB: Analytical Skills
16) Using the above figure, during which of the following periods does the price of crude oil show an upward trend?

   A) May to November
   B) May to July and October to December
   C) July to October
   D) April to November

   Answer: B

   Topic: Time-Series Graphs
   Skill: Analytical
   Question history: Previous edition, Chapter 1
   AACSB: Analytical Skills

17) According to the graph in the figure above, which year experienced the most rapid change in employment?

   A) Year 2
   B) Year 3
   C) Year 4
   D) Year 5

   Answer: B

   Topic: Time-Series Graphs
   Skill: Analytical
   Question history: Previous edition, Chapter 1
   AACSB: Analytical Skills
18) In the above figure, the diagram shows
   A) a downward trend in $x$.
   B) an upward trend in $x$.
   C) a scatter diagram.
   D) a two-variable scatter diagram.

   Answer: A
   Topic: Time-Series Graphs
   Skill: Conceptual
   Question history: Previous edition, Chapter 1
   AACSB: Analytical Skills

19) Inflation climbed steadily from 1952 to 1972. A time-series graph with inflation on the vertical axis and time (in years) on the horizontal axis would show
   A) the rate of inflation as a horizontal line.
   B) that inflation was following a decreasing trend line.
   C) that inflation had a positive trend.
   D) that inflation had a negative trend.

   Answer: C
   Topic: Time-Series Graphs
   Skill: Analytical
   Question history: Previous edition, Chapter 1
   AACSB: Analytical Skills
20) A time-series graph displays the price of copper. The slope of the line is negative for periods when the
   A) price of copper is falling.
   B) price of copper is rising.
   C) quantity of copper is falling.
   D) price of copper is low and not changing.
Answer: A

21) A graph shows the wages of factory workers. The slope of the line is positive for periods when the wage rate is
   A) falling.
   B) rising.
   C) high but not rising any higher.
   D) low.
Answer: B

22) On a time-series graph with a ratio scale,
   A) the slope of the line is negative when the level of the variable is rising.
   B) the same distance along the vertical axis measures different amounts of the variable.
   C) time is plotted on the vertical axis rather than the horizontal axis.
   D) it is impossible to determine a trend.
Answer: B

23) You believe that the total amount of goods produced in the United States has generally increased over the years. In a time-series graph illustrating the total amount produced, you expect to find
   A) an upward trend.
   B) no relationship between time and the amount of goods produced.
   C) an inverse relationship between time and the amount of goods produced.
   D) a linear relationship.
Answer: A
10 Appendix: Essay Questions

1) What kind of information is conveyed in a time-series graph?

Answer: A time series graph reveals four types of information. First, it shows the actual value of the variable(s) at each point in time. Second, it shows whether the variable(s) is rising or falling as time passes. Third, it shows the speed with which the variable(s) is changing. Finally, it shows the presence—or absence—of a trend.

Topic: Time Series
Skill: Recognition
Question history: Previous edition, Chapter 1
AACSB: Communication

11 Appendix: Numeric and Graphing Questions

1) The figure above shows the price of a DVD player from 2003 to 2007.
   a) What type of graph is illustrated above?
   b) What is the trend in the price of a DVD player?

Answer: a) The graph is a time-series graph because it plots time along the horizontal axis and the price of a DVD player along the vertical axis.
   b) The trend in the price of a DVD player is negative, that is, the price of a DVD player has generally decreased from one year to the next.

Topic: Time Series
Skill: Recognition
Question history: Previous edition, Chapter 1
AACSB: Analytical Skills
12 Appendix: True or False

1) A time series graph can show both the level of a variable and the speed with which the variable changes over time.
   Answer: TRUE
   Topic: Graphing Data
   Skill: Conceptual
   Question history: Previous edition, Chapter 1
   AACS: Reflective Thinking

2) A trend is a general tendency for a variable to increase or decrease over time.
   Answer: TRUE
   Topic: Graphing Data
   Skill: Recognition
   Question history: Previous edition, Chapter 1
   AACS: Reflective Thinking

13 Mathematical Note: Chained-Dollar Real GDP

1) Valuing the quantities of goods produced in consecutive years using prices in both years and then averaging the percentage changes in the value of output is part of the _______ method of calculating real GDP.
   A) base-year
   B) moving-base-year
   C) chain-weighted output index
   D) fixed quantities/variable prices
   Answer: C
   Topic: Real GDP
   Skill: Recognition
   Question history: Previous edition, Chapter 4
   AACS: Reflective Thinking

2) The chain-weighted output index method ________.
   A) is used to calculate the value of nominal GDP
   B) values the quantities produced in a year at the prices of the base year
   C) shows that real GDP increases every year
   D) uses the prices of two adjacent years to calculate the real GDP growth rate
   Answer: D
   Topic: Chain-Weighted Growth Rate
   Skill: Recognition
   Question history: Previous edition, Chapter 4
   AACS: Reflective Thinking
3) Which of the following is TRUE regarding the chain-weighted output index method?
   I. It is the method used to measure the growth rate of nominal GDP.
   II. It uses data from the current year and from the previous year.
   III. It is a method of measuring the growth rate of real GDP.

   A) I and II  
   B) II and III  
   C) I and III  
   D) I, II and III

   Answer: B

4) The chain-weighted output index
   A) uses only the current year’s prices to calculate growth in real GDP.
   B) uses prices for the current year and the previous year to calculate growth in real GDP.
   C) must be calculated only every other year.
   D) is an inaccurate way to measure growth in real GDP and so has been replaced by the "nominal-to-real" index.

   Answer: B

5) The chain-weighted output index method of calculating real GDP compares
   A) compares the quantities of goods produced in consecutive years using prices in both years and averaging the percentage changes in the value of output.
   B) quantities produced in different years using prices from a year chosen as a reference period.
   C) quantities produced in different years with the prices that prevailed during the year in which the output was produced.
   D) prices at different points in time using a sample of goods that is representative of goods purchased by households.

   Answer: A
6) The chain–weighted output index method of measuring real GDP is based on
   A) using current prices rather than base year prices
   B) averaging the market value of the expenditures over a two year period and then comparing with a base period.
   C) using the prices of two adjacent years to calculate the growth rate of real GDP.
   D) averaging the nominal and real measures of GDP to come up with a more accurate figure.

   Answer: C
   Topic: Chain–Weighted Growth Rate
   Skill: Conceptual
   Question history: Previous edition, Chapter 4
   AACSB: Reflective Thinking

7) At 2010 prices, the value of production in 2011 was 6 percentage points higher than in 2010. At 2011 prices, the value of production in 2011 was 4 percentage points higher than in 2010. Using the chain–weighted output index, real GDP is ______ in 2011 than in 2010.
   A) 10 percent greater
   B) 5 percent greater
   C) 7.5 percent greater
   D) 4 percent smaller

   Answer: B
   Topic: Chain–Weighted Growth Rate
   Skill: Analytical
   Question history: Modified 10th edition
   AACSB: Analytical Skills

   A) $10.5
   B) $11
   C) $10.1
   D) $12.72

   Answer: A
   Topic: Chain–Weighted Growth Rate
   Skill: Analytical
   Question history: Modified 10th edition
   AACSB: Analytical Skills