

Name _____

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

- 1) The national income accounts 1) _____
A) are an accounting framework used in measuring current economic activity.
B) are an accounting framework used in measuring government income.
C) are an accounting framework used in measuring firms income.
D) are an accounting framework used in measuring households income.
- 2) The three approaches to measuring economic activity are the 2) _____
A) consumer, business, and government approaches.
B) private, public, and international approaches.
C) cost, income, and expenditure approaches.
D) product, income, and expenditure approaches.
- 3) Which of the following statements is *true*? 3) _____
A) GDP calculated by expenditure approach is greater than GDP calculated by product approach.
B) GDP calculated by product approach is greater than GDP calculated by expenditure approach.
C) All three approaches for calculating GDP will result in the same value for GDP.
D) GDP calculated by income approach is greater than GDP calculated by expenditure approach.
- 4) The *value added* of a producer is the 4) _____
A) value of its total sales once externalities are accounted for.
B) value of its output minus the value of the inputs it purchases from other producers.
C) total amount for which all its products sell minus its change in inventories.
D) quality-adjusted amount of its total sales less any commissions paid.
- 5) The A company collects bushels of wild berries, which it sells for \$2 million to the B company to be made into jam. The B company's wild berry jam is sold for a total of \$6 million. What is the total contribution to the country's GDP from companies A and B? 5) _____
A) \$2 million B) \$4 million C) \$6 million D) \$8 million
- 6) The A company collects bushels of wild berries, which it sells for \$2 million to the B company to be made into jam. The B company's wild berry jam is sold for a total of \$6 million. What is the value added of company B? 6) _____
A) \$2 million B) \$4 million C) \$6 million D) \$8 million

- 7) The Compagnie Naturelie sells mounted butterflies, using butterfly bait it buys from another firm for \$20 thousand. It pays its workers \$35 thousand, pays \$1 thousand in taxes, and has profits of \$3 thousand. What is its value added? 7) _____
A) \$3 thousand B) \$19 thousand C) \$39 thousand D) \$59 thousand
- 8) The fundamental identity of national income accounting tells us that 8) _____
A) total production < total income + total expenditure.
B) total production = total income = total expenditure.
C) total production = total income + total expenditure.
D) total production = total income - total expenditure.
- 9) One problem with using market values to measure GDP is that 9) _____
A) some useful goods and services are not sold in markets.
B) prices for some goods change every year.
C) market values of export goods are usually priced in foreign currencies.
D) you cannot compare completely heterogeneous goods by using their dollar values.
- 10) Which of the following statements is *true*? 10) _____
A) The fundamental identity of national income accounting states that the GDP measured by the expenditure, income, and product approaches must be identical.
B) Total expenditures and total income are the same measures of economic activity.
C) The product, income, and expenditure approaches must generate the same answer to the measure of economic activity.
D) All of the above.
- 11) The measurement of GDP includes 11) _____
A) purchases and sales of goods produced in previous periods.
B) estimated values of activity in the underground economy.
C) nonmarket goods such as homemaking and child-rearing.
D) the benefits of clean air and water.
- 12) Underground activities in the economy are 12) _____
A) excluded from measurements of the GDP because they are not beneficial to the nation.
B) included in GDP if legal and excluded from GDP if illegal.
C) estimated and included in measurements of GDP.
D) excluded from the measurements of GDP because there is no way of measuring them.
- 13) Because government services are not sold in markets 13) _____
A) they are valued at their cost of production.
B) taxes are used to value their contribution.
C) they are excluded from measurements of GDP.
D) the government tries to estimate their market value and uses this to measure the government's contribution to GDP.

- 14) Countries A and B have the same GDP. In country A, people eat often in restaurants, but in country B people eat more often at home. Therefore 14) _____
- A) GDP is underestimated in country B.
 - B) economic activities are overestimated in country B.
 - C) economic activities are underestimated in country A.
 - D) GDP represents accurate measure of economic activities in both countries.
- 15) Intermediate goods are 15) _____
- A) either capital goods or inventories.
 - B) goods that are used up in the production of other goods in the same period that they were produced.
 - C) final goods that remain in inventories.
 - D) capital goods, which are used up in the production of other goods but were produced in earlier periods.
- 16) Which of the following statements is *true*? 16) _____
- A) Capital goods are produced in the same year as the related final goods, whereas intermediate goods are produced in different years.
 - B) Capital goods are final goods because they are not used up during a given year.
 - C) Capital goods are produced in one year and final goods are produced over a period of more than one year.
 - D) Capital goods are a type of intermediate good.
- 17) Capital goods are 17) _____
- A) used up in the same period that they are produced.
 - B) not counted in the GDP as final goods.
 - C) not used to produce other goods.
 - D) goods used to produce other goods.
- 18) Beautiful Boating purchases five new boats at \$200 thousand each to rent to vacationing fishermen. The firm sells its old boats to the public for \$500 thousand. The net increase in GDP of these transactions was 18) _____
- A) \$500,000. B) \$1,000,000. C) \$1,250,000. D) \$1,500,000.
- 19) Inventories are 19) _____
- A) fully included in annual measurements of GDP.
 - B) included in the measurement of capital goods.
 - C) included in the measurements of intermediate goods.
 - D) included in measurements of GDP only if they have changed from the preceding year.
- 20) GDP differs from GNP because 20) _____
- A) $GDP = GNP - \text{net factor payments from abroad}$.
 - B) $GNP = GDP - \text{net factor payments from abroad}$.
 - C) $GNP = GDP - \text{capital consumption allowances}$.
 - D) $GDP = GNP - \text{capital consumption allowances}$.

- 21) Which of the following statements is *true*? 21) _____
- A) GDP is always greater than GNP because the net factor payments from abroad is always negative.
 - B) GDP and GNP are always the same because the net factor payments from abroad is always zero.
 - C) GNP is always greater than GDP because the net factor payments from abroad is always positive.
 - D) GDP may be greater, equal, or smaller than GNP because the net factor payments from abroad may be negative, zero, or positive.
- 22) If a Canadian construction company built a road in Kuwait, this activity would be 22) _____
- A) fully included in Canadian GDP.
 - B) included in Canadian GDP but not Canadian GNP.
 - C) excluded from Canadian GNP.
 - D) included in Canadian GNP only for that portion that was attributable to Canadian capital and labour.
- 23) Nations such as Egypt and Turkey have wide differences between GNP and GDP because both countries 23) _____
- A) purchase large amounts of military wares from other countries.
 - B) have a high level of imports and exports relative to GNP.
 - C) have a large number of citizens working abroad.
 - D) have a large portion of their GNP produced by multinational corporations.
- 24) Suppose Toyota built a new automobile plant in Mexico using Japanese management practices, Canadian capital, and Mexican labour. Which of the following statements would be *true*? 24) _____
- A) The portion of output contributed by Japanese management would be included in neither Japanese GNP nor GDP.
 - B) The portion of output contributed by Japanese management would be included in both Japanese GNP and GDP.
 - C) The portion of output contributed by Mexican labour would be included in both Mexican GNP and GDP.
 - D) The portion of output contributed by Canadian capital would be included in Canadian GDP.
- 25) The income-expenditure identity says that 25) _____
- A) $Y = C + S + G$.
 - B) $Y = C + I + G + NX = CA$.
 - C) $Y = C + I + G + NX$.
 - D) $Y = C + I = G$.
- 26) If GDP in an economy is greater than its GNP, it means that 26) _____
- A) net factor payment from abroad is zero.
 - B) there is a measurement error.
 - C) net factor payment from abroad is positive.
 - D) net factor payment from abroad is negative.

- 27) In using the expenditure approach to GNP, consumption includes 27) _____
A) all final goods consumed by domestic households produced at home, but not those produced abroad.
B) all final and intermediate goods consumed by domestic households produced at home, but not those produced abroad.
C) all final and intermediate goods consumed by domestic households and firms.
D) all final goods consumed by domestic households produced at home and abroad.
- 28) In using the expenditure approach to GDP, consumption 28) _____
A) excludes all purchases by business firms.
B) includes houses, consumer durables, nondurable goods, and services.
C) includes residential investment, nondurable goods, and services.
D) includes consumer durables, semi-durable goods, nondurable goods, and services.
- 29) In the expenditure approach to GDP, which of the following would be excluded from measurements of GDP? 29) _____
A) government payments for goods produced by firms owned by state or local governments
B) government payments for goods produced by foreign firms
C) government payments for welfare
D) All government payments are included in GDP.
- 30) Net national income is equal to 30) _____
A) net domestic product minus indirect business taxes and employer contributions to Unemployment Insurance.
B) GDP minus depreciation.
C) GDP minus depreciation and indirect business taxes.
D) net domestic product minus depreciation and indirect business taxes.
- 31) Monica grows coconuts and catches fish. Last year she harvested 1500 coconuts and 600 fish. She values one fish as worth three coconuts. She gave Rachel 300 coconuts and 100 fish for helping her to harvest coconuts and catch fish, all of which were consumed by Rachel. Monica set aside 200 fish to help with next year's harvest. In terms of fish, Monica's income would equal 31) _____
A) 900 fish. B) 1100 fish. C) 2700 fish. D) 700 fish.
- 32) Private disposable income equals 32) _____
A) national income - taxes + transfers + interest.
B) GNP - taxes + transfers + interest.
C) NNP - taxes + transfers + interest.
D) national income - taxes - transfers
- 33) Private saving is defined as being equal to 33) _____
A) net national product minus consumption.
B) private disposable income minus consumption plus interest plus transfer payments.
C) private disposable income minus consumption.
D) private disposable income minus consumption plus interest.

- 34) Assume that the municipal government of Lethbridge, Alberta, has taxes of \$500, government purchases of \$350, transfer payments of \$150, and interest expenses of \$50. The government budget would 34) _____
- A) show a deficit of \$50.
 - B) be in balance with neither a surplus nor a deficit.
 - C) show a surplus of \$50.
 - D) show a surplus of \$100.
- 35) The government budget surplus equals 35) _____
- A) government outlays minus receipts.
 - B) government purchases minus transfers.
 - C) government purchases plus transfers.
 - D) government receipts minus outlays.
- 36) Assume that the municipal government of Winnipeg, Manitoba, has taxes of \$1000, transfer payments of \$400, and interest payments on the government debt of \$100. If government purchases of goods and services are \$300 36) _____
- A) government saving will be \$500.
 - B) government saving will be \$200.
 - C) the government will not have any saving.
 - D) government saving will be \$100.
- 37) National saving equals private saving plus government saving, which in turns equals 37) _____
- A) $GDP + NFP - C - G$.
 - B) $GDP + C + G$.
 - C) $GDP + NFP$.
 - D) $C + S + T$.
- 38) The uses-of-saving identity says that an economy's private saving is used for 38) _____
- A) investment, interest expenses, the government budget deficit, and the current account.
 - B) investment, the government budget deficit, and the current account.
 - C) investment, interest expenses, the government budget deficit, transfer payments, and the current account.
 - D) investment, interest expenses, and the government budget deficit.
- 39) The uses-of-saving identity shows that if the government budget deficit rises, then which of the following must happen? 39) _____
- A) Private saving must rise, investment must fall, and/or the current account must rise.
 - B) Private saving must rise, investment must rise, and/or the current account must fall.
 - C) Private saving must rise, investment must rise, and/or the current account must rise.
 - D) Private saving must rise, investment must fall, and/or the current account must fall.
- 40) In 2001 private saving in the country of Polity was \$112 billion, investment was \$114.5 billion, and the current account balance was -\$26.5 billion. From the uses-of-saving identity, how much was the government of Polity saving? 40) _____
- A) -\$24 billion
 - B) -\$39 billion
 - C) \$39 billion
 - D) \$24 billion

- 41) In 2001 national saving in the country of Polity was \$85 billion, investment was \$112 billion, and private saving was \$114 billion. How much was the current account balance? 41) _____
 A) \$35 billion B) -\$27 billion C) \$27 billion D) -\$35 billion
- 42) Saving is a _____ variable, and wealth is a _____ variable. 42) _____
 A) flow; flow B) stock; stock C) stock; flow D) flow; stock
- 43) Measuring GDP in nominal terms 43) _____
 A) does not tell us how an economy's physical production has changed over time.
 B) is the most effective method because it accurately measures how an economy's physical production has changed over time.
 C) is the market value of an economy's final output using the market prices of a given base year.
 D) is unreliable because the quality of goods changes over time.
- 44) Investment in the United States is greater than the national saving. This implies that 44) _____
 A) the current account is negative. B) the current account is positive.
 C) firms are very productive. D) the current account is zero.
- 45) If a country runs a current account _____, it means that its national saving is _____ than investment. 45) _____
 A) balance, less B) surplus, greater
 C) deficit, less D) deficit, greater
- 46) Canada's current account has recently been negative. This means that 46) _____
 A) Canadian trade partners also have a current account deficit.
 B) investment is greater than saving in Canada.
 C) saving is greater than investment in Canada.
 D) the interest rate is higher in Canada compared to the United States.
- 47) The country of Old Jersey produces milk and butter, and it has published the following macroeconomic data, where quantities are in gallons and prices are dollars per gallon: 47) _____

	2000		2001	
Good	Quantity	Price	Quantity	Price
Milk	500	\$2	900	\$3
Butter	2000	\$1	3000	\$2

Between 2000 and 2001, nominal GDP grew by

- A) 60.0%. B) 65.5%. C) 83.3%. D) 190.0%.

- 48) A variable-weight price index 48) _____
- A) equals the value of current output at current prices divided by the value of current output at base-year prices.
- B) equals the value of a fixed basket at current prices divided by the value of a fixed basket at base-year prices.
- C) is misleading because it cannot distinguish between nominal and real measures.
- D) is used in the consumer price index.

- 49) The country of Old Jersey produces milk and butter, and it has published the following macroeconomic data, where quantities are in gallons and prices are dollars per gallon: 49) _____

	2000		2001	
Good	Quantity	Price	Quantity	Price
Milk	500	\$2	900	\$3
Butter	2000	\$1	3000	\$2

Between 2000 and 2001, the percent change in the price level as measured by a variable-weight price index was

- A) 60.00%. B) 81.25%. C) 83.33%. D) 123.08%.

- 50) Use the following information to answer this question about the country of Polity: 50) _____

	2000		2001	
Good	Quantity	Price	Quantity	Price
Guns	4000	\$4	4500	\$6
Butter	5000	\$3	5200	\$2

Using a fixed-weight price index with 1998 as the base year, what is the percent change in real output from 2000 to 2001?

- A) 8% B) 10% C) 12% D) 15%

- 51) The country of Old Jersey produces milk and butter, and it has published the following macroeconomic data, where quantities are in gallons and prices are dollars per gallon: 51) _____

	2000		2001	
Good	Quantity	Price	Quantity	Price
Milk	500	\$2	900	\$3
Butter	2000	\$1	3000	\$2

Between 2000 and 2001, real GDP grew by how much, using a variable-weight price index?

- A) 37.5% B) 60.05% C) 83.3% D) 190.0%

- 52) If nominal GDP for 2000 is \$6400 billion and real GDP for 2001 is \$6720 billion (in 2000 dollars), then the growth rate of real GDP is 52) _____
- A) 0%. B) 0.5%. C) 5%. D) 50%.

- 53) If real GDP falls by 1 percent, but the nominal GDP rises by 5 percent, then we must conclude that 53) _____
 A) the price level rises by 6 percent. B) the price level rises by 5 percent.
 C) the price level falls by 1 percent. D) the price level falls by 4 percent.
- 54) If the price index was 100 in 1991 and 120 in 2001, and nominal GDP was \$360 billion in 1991 and \$480 billion in 2001, then the value of 2001 GDP in terms of 1991 dollars would be 54) _____
 A) \$300 billion. B) \$384 billion. C) \$400 billion. D) \$424 billion.
- 55) Suppose that nominal GDP in 1990 was \$1,015.5 billion, and in 2000 it was \$2,732.0 billion. The GDP deflator is 42.0 for 1990 and 85.7 for 2000, where 1992 is the base year. Calculate the percent change in real GDP in the decade from 1990 and 2000. Round off to the nearest percentage point. 55) _____
 A) 32% B) 104% C) 132% D) 169%
- 56) Nominal personal consumption expenditures in Canada were \$172.4 billion in 1980 and rose to \$399.3 billion in 1990. The implicit price deflator for personal consumption expenditures is 67 for 1980 and 118.6 for 1990, where 1986 is the base year. Calculate the percent change in real personal consumption expenditures (rounded to the nearest percentage point) in the decade. 56) _____
 A) 31% B) 61% C) 114% D) 133%
- 57) A fixed-weight price index 57) _____
 A) is used to calculate the GDP deflator.
 B) equals the value of current output at current prices divided by the value of current output at base-year prices.
 C) equals the value of a fixed basket at current prices divided by the value of a fixed basket at base-year prices.
 D) is misleading because it cannot distinguish between nominal and real measures.
- 58) Say nominal GDP was \$603.9 billion in 2001 and \$572.3 billion in 2000, while the GDP deflator was 121.1 in 2001 and 117.7 in 2000. What was the growth rate of real GDP between 2000 and 2001? 58) _____
 A) 5.5% B) 2.9% C) 2.6% D) 1.0%
- 59) The country of Old Jersey produces milk and butter, and it has published the following macroeconomic data, where quantities are in gallons and prices are dollars per gallon: 59) _____

	2001		2002	
Good	Quantity	Price	Quantity	Price
Milk	500	\$2	900	\$3
Butter	2000	\$1	3000	\$2

Between 2001 and 2002, the percent change in the price level as measured by a fixed-weight index that uses production in 2001 as the fixed "basket" of goods was

- A) 60.00%. B) 81.25%. C) 83.33%. D) 123.08%.

60) On January 1, 2001, the GDP deflator for Old York was 300, and on January 1, 2003, the GDP deflator had risen to 330.75. Based on this information, the annual average inflation rate for the two years was 60) _____

A) 5%. B) 5.125%. C) 10%. D) 10.25%.

61) If the price index last year was 1.0 and today it is 1.4, what is the inflation rate over this period? 61) _____

A) -4% B) 1.4% C) 4% D) 40%

62) The consumer price index is 132 in 2004 and 112 in 2003 when the base year is 1997. The 2004 annual inflation rate, using 2003 as a base year, is 62) _____

A) 17.8 percent.
B) 12 percent.
C) 20 percent.
D) unknown, as there is not sufficient information.

63) GDP deflator is 63) _____

A) a price index that measures the overall level of prices of goods and services included in household baskets.
B) a price index that measures the overall level of prices of goods and services included in GDP.
C) obtained by measuring the price of goods and services in a base year.
D) obtained by dividing real GDP over nominal GDP.

64) You are given information on the consumer price index (CPI), where the values given are those for December 31 of each year. 64) _____

Year	CPI
1997	126.1
1998	133.8
1999	137.9
2000	141.9
2001	145.8

In which year was the inflation rate the highest?

A) 1998 B) 1999 C) 2000 D) 2001

65) The consumer price index (CPI) is 311.1 for 2002 when using 1975 as the base year (1975 = 100). Now suppose we switch and use 2002 as the base year (2002 = 100). What is the CPI for 1975 with the new base year? 65) _____

A) 20.2 B) 32.1 C) 48.4 D) 56.2

66) The real interest rate is equal to 66) _____

A) nominal interest rate + inflation rate. B) nominal interest rate / inflation rate.
C) nominal interest rate - inflation rate. D) nominal interest rate $\times$ inflation rate.

- 67) Which of the following statements is *false*? 67) _____
- A) Nominal interest rate must exceed the expected real interest rate as long as there is a positive expected inflation rate.
 - B) The expected real interest rate is the correct interest rate to use for studying people's decisions about how much to borrow or lend.
 - C) Nominal interest rate can be either positive, zero, or negative.
 - D) The expected real interest rate can be either positive, zero, or negative.
- 68) By Marks buys a one-year German government bond (called a bund) for \$400. He receives principal and interest totalling \$436 one year later. During the year the CPI rose from 150 to 162. The nominal interest rate on the bond was _____, and the real interest rate was _____. 68) _____
- A) 36%; 24%
 - B) 9%; 1%
 - C) 36%; 12%
 - D) 9%; -1%
- 69) The expected real interest rate r is equal to 69) _____
- A) nominal interest rate plus expected inflation rate.
 - B) expected nominal interest rate minus inflation rate.
 - C) nominal interest rate minus inflation rate.
 - D) nominal interest rate minus expected inflation rate.
- 70) Mark buys a one-year German government bond (called a bund) for \$400. He receives principal and interest totalling \$436 one year later. During the year the CPI rose from 150 to 162, but he had thought the CPI would be at 159 by the end of the year. Mark had expected the real interest rate to be _____, but it actually turned out to be _____. 70) _____
- A) 8%; 1%
 - B) 6%; 3%
 - C) 3%; 1%
 - D) 1%; 3%
- 71) If national savings in an economy is equal to \$50 billion, exports are \$10 billion, imports are \$5 billion, and net factor payments from abroad is -\$2 billion, total investment will be 71) _____
- A) \$74 billion.
 - B) \$47 billion.
 - C) \$45 billion.
 - D) \$57 billion.
- 72) If we choose 2007 as a base year, then in 2007 72) _____
- A) nominal GDP will be greater than real GDP.
 - B) nominal GDP will be the same as real GDP.
 - C) nominal GDP will be smaller than real GDP.
 - D) we cannot compare nominal GDP and real GDP without having their actual values.
- 73) The GDP deflator and the CPI 73) _____
- A) measure real GDP and nominal GDP, respectively.
 - B) measure the aggregate price level.
 - C) measure inflation.
 - D) measure nominal GDP and real GDP, respectively.

- 74) The fact that Dollarama's sales increased during the recent recession indicates that 74) _____
A) the CPI is a better measure for the cost of living than the GDP deflator.
B) inflation measured by the CPI overstates the true increases in the cost of living.
C) the CPI understates the actual cost of living.
D) inflation measured by the CPI understates the true increases in the cost of living.
- 75) The real interest rate 75) _____
A) can be negative.
B) is always smaller than the nominal interest rate.
C) is always greater than the nominal interest rate.
D) is always positive.
- 76) The expected real interest rate is 76) _____
A) the ratio of nominal interest rate to the expected inflation rate.
B) the difference between the nominal interest rate and the expected inflation rate.
C) the ratio of nominal interest rate to the inflation rate.
D) the difference between the nominal interest rate and inflation rate.
- 77) If real interest is 2 percent and the expected inflation rate is 5 percent, then the nominal interest rate is 77) _____
A) 0.4 percent. B) 7 percent. C) 2.5 percent. D) 3 percent.
- 78) Which of the following transactions is part of the Canadian GDP? 78) _____
A) Amanda buys a Chinese-made laptop from an online store in Taiwan.
B) Dave sells the stocks he purchased last month in the Toronto Stock Exchange market.
C) Ali sells back his textbook (which he purchased last year) to the bookstore.
D) Mary Jane buys her husband dinner in Vancouver.
- 79) Suppose that the national savings in an economy is \$50 billion and total investment \$60 billion. The country should have 79) _____
A) a trade surplus in the amount of \$110 billion.
B) a trade deficit in the amount of \$110 billion.
C) a trade deficit in the amount of \$10 billion.
D) a trade surplus in the amount of \$10 billion.
- 80) If the GDP deflator in 2017 is 110.5 and the base year is 2016, then the inflation rate in 2017 will be 80) _____
A) 10.5 percent. B) less than 110.5.
C) 110.5 percent. D) more than 110.5.

- 81) Consider that a consumer likes chicken and beef equally well and in the base year consumes equal amounts of each. If the price of chicken rises sharply next year, she will eat beef almost exclusively. The official CPI, which uses the base year basket as a measure the cost of living, will _____ 81)
- A) reflect the true changes in the cost of living.
 - B) be biased downward.
 - C) underestimate the true cost of living.
 - D) be biased upward.
- 82) Which of the following is *true* about the nominal and real interest rates? _____ 82)
- A) The nominal interest rate is always positive, but the real interest rate can be negative.
 - B) The real interest rate can be higher than the nominal interest rate.
 - C) The nominal and the real interest rates always move together.
 - D) Changes in the nominal interest rate are smoother than the real interest rate.
- 83) Which of the following is NOT a consequence of the CPI bias? _____ 83)
- A) The monetary policy that targets inflation will need to adjust for the CPI bias.
 - B) The economic growth rate will be biased upward.
 - C) The state of the economy will be understated.
 - D) The CPI-indexed government transfer payments will be higher than the amount planned.
- 84) If nominal GDP in 2015 exceeds real GDP in 2015, then we know with certainty that _____ 84)
- A) the price level in 2015 is greater than the price level in the base year.
 - B) real GDP in 2015 is less than real GDP in the base year.
 - C) real GDP in 2015 is equal to the real GDP in the base year.
 - D) the price level in 2015 is less than the price level in the base year.

ESSAY. Write your answer in the space provided or on a separate sheet of paper.

- 85) Carl's Computer Centre sells computers to business firms. Businesses then use the computers to produce other goods and services. Over the past year, sales representatives were paid \$3.5 million, \$0.5 million went for taxes, \$0.5 million was profit for Carl, and \$10 million was paid for computers at the wholesale level. What was the firm's total contribution to GDP?
- 86) What is the main conceptual difference between GDP and GNP? How different are GDP and GNP for Canada? For countries with many citizens who work abroad?
- 87) Citizens of the country of Heehaw produce hay and provide entertainment services (banjo playing). In 1998 they produced \$15 million worth of hay, with \$11 million consumed domestically and the other \$4 million sold to neighbouring countries. They provided \$7 million worth of banjo-playing services, \$5 million in Heehaw and \$2 million in neighbouring countries. They purchased \$6 million worth of soda pop from neighbouring countries. Calculate the magnitudes of GNP, GDP, net factor payments from abroad, net exports, and the current account balance.
- 88) Explain why in agricultural countries the official GDP are often underestimated.

89) In the country of Kwaki, people produce canoes, fish for salmon, and grow corn. In 2002 they produced 5000 canoes using labour and natural materials only, but sold only 4000, as the economy entered a recession. The cost of producing each canoe was \$1000, but the ones that sold were priced at \$1250. They fished \$30 million worth of salmon. They used \$3 million of the salmon as fertilizer for corn. They grew and ate \$55 million of corn. What was Kwaki's GDP in 2002?

90) Pete the Pizza Man produced \$87 thousand worth of pizzas in the past year. He paid \$39 thousand to employees, paid \$11 thousand for vegetables and other ingredients, and paid \$5 thousand in taxes. He began the year with ingredient inventories valued at \$1 thousand, and ended the year with inventories valued at \$2 thousand. What was Pete's (and his employees') total contribution to GDP this year?

91) What is the difference between nominal and real economic variables? Why do economists tend to concentrate on changes in real magnitudes?

92) The country of Myrule has produced the following quantity of gauges and potatoes, with the price of each listed in dollar terms:

Good	2001		2002	
	Quantity	Price	Quantity	Price
Gauges	8000	\$4	10000	\$3
Potatoes	6000	\$8	5000	\$14

- Using 2001 as the base year, what are the price indexes for 2001 and 2002?
- What is the inflation rate using this index?
- What is the percent change in real output using this index?

93) For 2002, the Kwakian economy had the following nominal quantities (in billions of dollars) and price indexes (1997 = 100) for each category of expenditure:

	Nominal Value	Price Index
Consumption	423.1	125.1
Fixed investment	112.0	111.0
Government purchases	165.8	123.2
Exports	180.4	100.9
Imports	186.7	97.2
Change in inventories	-3.28	111.0

- Calculate the real quantity for each category (to one decimal point).
- Calculate nominal and real GDP.
- Find the implicit price deflator (1997 = 100).

94) Nominal GDP in Kwaki was \$674.8 billion in 2001 and \$688.4 billion in 2002. The GDP deflator was 121.6 for 2001 and 123.3 for 2002.

- What is the growth rate of nominal GDP between 2001 and 2002?
- What is the inflation rate from 2001 to 2002?
- What is the growth rate of real GDP from 2001 to 2002?

- 95) The nominal interest rate is 750, today's price level is 150, and you expect the price level to be 156 one year from now. What is the expected inflation rate? What is the expected real interest rate?
- 96) Explain why CPI inflation overstates increases in the cost of living.
- 97) In 2012, consumers in Saskatchewan spent \$40,851 million, total investment was \$18,873 million, changes in inventory were \$186 million, government purchase of goods and services was \$2,220 million, exports were \$39,249 million, and imports were \$41,799 million. All figures are in 2007 dollars.
- Calculate 2012 real GDP (in 2007 dollars).
 - Nominal GDP in 2012 was \$77,929. What was the GDP deflator in 2012?
 - In 2011, real GDP was \$58,184 million and the GDP deflator was 126.2. What were the growth rate and inflation rate in 2012?
 - Given a total population of 1.11 million, what was per capita GDP in Saskatchewan in 2012?
- 98) Explain how changes in the inflation expectations affect the decisions on borrowing money.
- 99) Explain three consequences of the CPI biases.

Answer Key

Testname: UNTITLED2

- 1) A
- 2) D
- 3) C
- 4) B
- 5) C
- 6) B
- 7) C
- 8) B
- 9) A
- 10) D
- 11) B
- 12) C
- 13) A
- 14) A
- 15) B
- 16) B
- 17) D
- 18) B
- 19) D
- 20) A
- 21) D
- 22) D
- 23) C
- 24) C
- 25) C
- 26) D
- 27) D
- 28) D
- 29) C
- 30) C
- 31) A
- 32) B
- 33) C
- 34) A
- 35) D
- 36) B
- 37) A
- 38) B
- 39) D
- 40) A
- 41) B
- 42) D

Answer Key

Testname: UNTITLED2

- 43) A
- 44) A
- 45) C
- 46) B
- 47) D
- 48) A
- 49) B
- 50) B
- 51) B
- 52) C
- 53) A
- 54) C
- 55) A
- 56) A
- 57) C
- 58) C
- 59) C
- 60) A
- 61) D
- 62) A
- 63) B
- 64) A
- 65) B
- 66) C
- 67) C
- 68) B
- 69) D
- 70) C
- 71) B
- 72) B
- 73) B
- 74) B
- 75) A
- 76) B
- 77) B
- 78) D
- 79) B
- 80) A
- 81) D
- 82) A
- 83) B
- 84) D

- 85) \$4.5 million. Note that the \$10 million paid for computers is not part of value added. Note also that the fact that the firm produces an intermediate good doesn't mean that it doesn't contribute to GDP.
- 86) GDP represents output produced within a country, while GNP represents output produced by a country's factors of production; the difference is net factor payments from abroad. For Canada there's a three percent difference, but for countries that have many citizens working abroad, there may be a much bigger difference.
- 87) GNP is output by citizens, which equals \$15 million + \$7 million = \$22 million. GDP is output produced in the country, which equals \$15 million (hay) + \$5 million (domestic banjo playing) = \$20 million. Net factor payments from abroad represent the difference between GNP and GDP; this is the \$2 million paid for banjo playing in other countries. Net exports are \$4 million (hay sold abroad) minus \$6 million (soda pop imports) = -\$2 million. (Note that banjo playing abroad is not part of GDP, so it is not part of net exports either.) The current account balance is net exports + net factor payments = -\$2 million + \$2 million = 0.
- 88) Since in agricultural countries many people grow their own food, make their own clothes, and provide services for each other within a family or village group, these non-market activities are not counted in the official GDP.
- 89) Inventories are valued at the cost of production, so the 1000 canoes in inventory were valued at \$1000 each, for a total of \$1 million. Four thousand canoes at \$1250 each totaled \$5 million. Salmon as a final good were worth \$27 million (the other \$3 million were used up as an intermediate good), and corn worth \$55 million was grown. So total GDP (in millions) was \$1 + \$5 + \$27 + \$55 = \$88 million.
- 90) \$87 thousand - \$11 thousand paid for intermediate goods + \$1 thousand change in inventories = \$77 thousand.
- 91) Nominal variables are in units of money, while real variables are in physical quantities of output. We measure nominal variables using current market prices and real variables using market prices in a given base year. Nominal variables may increase, but you don't know if the increase is due to higher prices and the same quantity, or a higher quantity with unchanged prices; real variables reflect just quantity changes. For the most part, real variables (consumption, investment, the capital stock) affect each other in the economy, with lesser roles played by nominal variables (money supply, price level).
- 92) a. 2001 price index = 1.00
- 2002 price index = base-year output at current prices/base-year output at base-year prices = $[(8000 \times 3) + (6000 \times 14)] / [(8000 \times 4) + (6000 \times 8)] = 108,000 / 80,000 = 1.35$
- b. Inflation rate = $[(1.35/1) - 1] \times 100\% = 35\%$
- c. Nominal GNP (2001) = $(8000 \times 4) + (6000 \times 8) = 80,000$
 Nominal GNP (2002) = $(10,000 \times 3) + (5000 \times 14) = 100,000$
 Real GNP (2001) = nominal GNP (2001) = 80,000
 Real GNP (2002) = nominal GNP (2002)/price index = $100,000/1.35 = 74,074$
 Real output growth = $[(74,074/80,000) - 1] \times 100\% = -7.4\%$
- 93) a. Real C = $423.1/1.251 = 338.2$; real fixed / = 100.9; real G = 134.5; real exports = $180.4/1.0009 = 179$; real imports = $186.77/972 = 192.1$; real CPI = $-3.28/1.11 = -2.95$.
- b. Add up the nominal quantities (but subtract imports) to get 691.32. Add up the real quantities (but subtract imports) in part a to get 563.25.
- c. The implicit deflator is nominal GDP/real GDP $\times 100 = 691.32/563.25 \times 100 = 122.0$.
- 94) a. 2%
- b. 1.4%
- c. 0.6%
- 95) Expected inflation = $156/150 - 1 = .04 = 4\%$; expected real interest rate = $7\% - 4\% = 3\%$.
- 96) One reason is the quality adjustment bias, which means that CPI does not fully account for the changes in the quality of goods and services. Another reason is the substitution bias. That is, CPI is based on a fixed basket of goods and services, but consumers may substitute goods and services with lower prices with those of higher prices. Therefore, higher prices may not necessary decrease the cost of living as CPI suggests.

Answer Key

Testname: UNTITLED2

- 97) a. Real GDP = \$59,580
b. GDP deflator = 130.8
c. Growth rate = 2.4%; inflation rate = 3.64%
d. Per capita GDP = \$53.68
- 98) Changes in inflation expectations affect the calculation of the real interest rate and, therefore, the real cost of borrowing money. If inflation is expected to be higher, the real interest rate and the cost of borrowing money is less.
- 99) 1. CPI is overestimated because it does not consider the quality changes in the goods and services.
2. CPI is overestimated because it ignores the fact consumers can substitute cheaper goods or services for more expensive ones.
3. CPI does not consider the substitution of cheaper outlets for more expensive outlets when prices are higher.