Problem Set 5: Measuring Total Production and Income

1. China produces and sells millions of types of products. To add them up to a single aggregate, each good is multiplied by _____.
    a. Its cost of production.
    b. Its market price.
    c. Its utility to consumers.
    d. Its contribution to corporate profits.

2. In the actual economy, goods and services are purchased by _____.
    a. households, but not firms or the government.
    b. households and firms, but not the government.
    c. households and the government, but not firms.
    d. households, firms, and the government.

3. For an economy as a whole, income must equal expenditure because _____.
    a. the number of firms is equal to the number of households in an economy.
    b. international law requires that income equal expenditure.
    c. every dollar of spending by some buyer is a dollar of income for some seller.
    d. every dollar of saving by some consumer is a dollar of spending by some other consumer.

7. To calculate GDP _____.
    a. Sum the quantity of all final goods and services produced in an economy in a year.
    b. Sum the quantity of all goods and services sold in an economy in a year.
    c. Multiply each final good and service produced in an economy in a year by its price that year and then sum the result.
    d. Weight the output of each good and service produced in an economy in a year by its price in that year, and then sum the result.

8. Which of the following examples of production of goods and services would be included in U.S. GDP?
    a. Samantha, a Canadian citizen, grows sweet corn in Minnesota and sells it to a grocery store in Canada.
    b. Ian, an American citizen, grows peaches for his family in the back yard of their Atlanta home.
    c. Leo, an American citizen, cooks crack in his Seattle home and sells it to his friends and neighbors.
    d. Harvey, a Canadian citizen, works in a U.S.-owned auto assembly plant in Toronto.

9. Until recently, George lived in a home that was newly constructed in 2015. In 2015, he paid $200,000 for the brand new house. He sold the house in 2016 for $225,000. Which of the following statements is correct regarding the sale of the house?
    a. The 2016 sale increased 2016 GDP by $225,000 and had no effect on 2015 GDP.
    b. The 2006 sale increased 2016 GDP by $25,000 and had no effect on 2015 GDP.
    c. The 2006 sale increased 2016 GDP by $225,000; furthermore, the 2016 sale caused 2015 GDP to be revised upward by $25,000.
    d. The 2016 sale affected neither 2015 GDP nor 2016 GDP.

10. In 2017, Corny Company grows and sells $2 million worth of corn to Tasty Cereal Company, which makes corn flakes. Tasty Cereal Company produces $6 million worth of corn flakes in 2017, with sales to households during the year of $4.5 million. The unsold $1.5 million worth of corn flakes remains in Tasty Cereal Company's inventory at the end of 2017. The transactions just described contribute how much to GDP for 2017?
    a. $4.5 million
    b. $6 million
    c. $6.5 million
    d. $8 million

11. Over time, people have come to rely more on market-produced goods and less on goods that they produce for themselves. For example, busy people with high incomes, rather than cleaning their own houses, hire people to clean their houses. By itself, this change has
    a. caused measured GDP to fall.
    b. not caused any change in measured GDP.
    c. caused measured GDP to rise.
    d. probably changed measured GDP, but in an uncertain direction; the direction of the change depends on the difference in the quality of the cleaning that has resulted.

12. Consider the following three items of spending by the government: (1) the federal government pays a $500 unemployment benefit to an unemployed person; (2) the federal government makes a $2,000 salary payment to a navy lieutenant; (3) the city of Bozeman, Montana, makes a $10,000 payment to ABC Lighting Company for street lights in Bozeman. Which of these payments contributes directly to government purchases in the national income accounts?
    a. only item (1)
    b. All items (1), (2), and (3)
    c. only items (1) and (2)
    d. only items (2) and (3)

13. The local Chevrolet dealership has an increase in inventory of twenty-five cars in 2006. In 2007, it sells all twenty-five cars. Which of the following statements is correct?
    a. The value of the cars in inventory will be counted as part of 2006 GDP, and the value of the cars sold in 2007 will not increase 2007 GDP.
    b. The value of the cars in inventory will not affect 2006 GDP, and the value of the cars sold in 2007 will increase 2007 GDP.
    c. The value of the cars in inventory will be counted as part of 2006 GDP, and the value of the cars sold in 2007 will increase 2007 GDP.
    d. The value of the cars in inventory will not affect 2006 GDP, and the value of the cars sold in 2007 will not increase 2007 GDP.

14. The following information was reported by the World Bank. On the basis of this information, which list contains the correct ordering of GDP per person from highest to lowest?

Country	Nominal GDP in 2000	Population in 2000
Kenya	$10,400 million	30.1 million
Tanzania	$9,000 million	33.7 million
Zimbabwe	$7,200 million	12.6 million

    a. Kenya, Tanzania, Zimbabwe
    b. Tanzania, Kenya, Zimbabwe
    c. Zimbabwe, Kenya, Tanzania
    d. Zimbabwe, Tanzania, Kenya

16. Which of the following is included in the consumption component of China's GDP?
    a. purchases of staplers, paper clips, and pens by Chinese business firms
    b. purchases of natural gas by Chinese households
    c. purchases of newly constructed homes by Chinese households
    d. purchase of stocks

17. Suppose an economy's expenditures are equal to $13 trillion. Income in the economy is _____.
    a. Less than $13 trillion
    b. More than $13 trillion
    c. Exactly $13 trillion
    d. Somewhere between $13 trillion $15 trillion

18. Which of the following is an example of an intermediate product?
    a. A pair of skis sold by a sporting goods retailer to a skier.
    b. A share of IBM stock.
    c. The lumber produced by Boise Cascade and sold to a builder of new houses.
    d. An antique car sold to the highest bidder.

19. Which of the following does not count towards GDP?
    a. Someone buys Apple stocks worth $10,000.
    b. KFC buys chicken that it fries in its stores.
    c. Someone pays $100 for a "massage" in an illegal "massage" parlor.
    d. All of the above do not count towards GDP.

20. There are three firms in an economy: X, Y, and Z. Firm X buys $200 worth of goods from Y, and $300 worth of goods from firm Z, and produces 250 units of output at $4 per unit. Firm Y buys $150 worth of goods from firm X, and $250 worth of goods from firm Z, and produces 300 units of output at $6 per unit. Firm Z buys $75 worth of goods from firm X, and $50 worth of goods from firm Y, and produces 500 units at $2 per unit. Given this information, what is the economy's GDP?
    a. $1,825
    b. $2,700
    c. $2,775
    d. $3,800

21. Investment is the purchase of capital equipment, inventories, and _____.
    a. Structures.
    b. Nondurable goods.
    c. Durable goods.
    d. All of the above.

22. Which of the following would be considered investment in national accounting?
    a. The Smith's buy a home that was built in 1990.
    b. The federal government pays the salary of a captain in the Air Force.
    c. Jack's Boat Storage buys a new boat lift.
    d. Chairs-R-Us buys a used lathe to manufacture chairs.

23. For purposes of calculating GDP, which of the following payments is not included in the government spending component?
    a. Social security payments.
    b. Wages paid by the Zhejiang province to pay your teachers' salaries at WKU.
    c. Wages paid by a state government to the workers in its welfare department.
    d. The federal government's purchase of a submarine from a shipbuilder.

24. The sale of illegal drugs:
    a. Is included in GDP under services.
    b. Is included in GDP under health care expenditures.
    c. Is included in GDP as a component of home production (non-market activity).
    d. Is not included in GDP.

25. Which of the following would be counted in the calculation of GDP?
    a. The sale of a rare coin to a coin collector.
    b. Homes that are rebuilt after being completely destroyed by a hurricane.
    c. The sale of a 1966 Ford Fairmont.
    d. The sale of cocaine in the black market.

26. Which of the following would NOT be counted as a final good for inclusion in GDP?
    a. A piece of glass bought by a consumer to fix a broken window.
    b. A sheet of glass purchased by a commercial builder of a new home.
    c. A sheet of glass produced this year and ending up in the inventory of a retail store.
    d. A home that is built this year but is not sold.

27. Which of the following economic activities would not be included in China's GDP?
    a. Fred hires a licensed nanny for $10/hour to help his wife take care of their kids.
    b. Edwin, a great hairdresser, reports $20 tips on his income taxes.
    c. You buy a prepaid credit card.
    d. You buy a macro textbook in the bookstore that you return the next day.

28. Which of the following is not a part of China's income?
    a. The value of an insurance policy on a new Mercedes sold by a Chinese company.
    b. The value of a Mercedes imported from Germany.
    c. The value of a Mercedes produced in China.
    d. The commissions earned by a Mercedes dealership in China.

29. If Chinese imports of goods and services exceed exports:
    a. China's GDP is less than the sum of C, I, and G.
    b. China's GDP exceeds the sum C, I, and G.
    c. China's net exports are positive.
    d. China's GDP equals the sum of C, I, and G.

30. Use the table to calculate GDP.

	billions of dollars
Consumption	4,900
Investment	1,300
Transfer payments	1,050
Government expenditures	1,200
Exports	1,050
Imports	950
Net foreign factor income	20

    a. 6,200.
    b. 7,400.
    c. 7,500.
    d. 8,450.

31. Use the table above to calculate net exports.
    a. -100.
    b. 100.
    c. 950.
    d. 1050.

Calculate the GINI Coefficient for Country A and Country B.

Cumulative Population Quintiles	Country A's Cumulative Income Share	Country B's Cumulative Income Share
20	5	10
40	10	25
60	15	45
80	40	70
100	100	100

21. Calculate the GINI Coefficient for Country A. Country A's GINI coefficient is _____.
    a.   0.0
    b.   0.2
    c.   0.52
    d.   1.0

22. Calculate the GINI Coefficient for Country B. Country B's GINI coefficient is _____.
    a.   0.0
    b.   0.2
    c.   0.52
    d.   1.0