

Handout 3

Exercises

1. Recently, in a galaxy far far away, we learned that on the planet *Coruscant*, between 2016 and 2017, the real GDP of the *Republic City* grew by 30%, while the GDP deflator decreased by 25%. What is the change in the nominal GDP of the Republic between the two years?
 - (a) increased by 5%
 - (b) decreased by 5%
 - (c) increased by 2.5%
 - (d) decreased by 2.5%
2. How many statements in the following are **true**?
 - The prices used to calculate real GDP for year t are the prices from the base year.
 - The prices used to calculate nominal GDP are current year prices.
 - The values of real GDP and nominal GDP for a particular year are always different.
 - The GDP deflator for year t can be computed if real GDP for year t and nominal GDP for year t are known.
 - (a) 0
 - (b) 2
 - (c) 3
 - (d) 4
3. Use the following table to answer the question. Assume that the deflators are calculated using 2014 as the base year.

Year	Nominal GDP	Deflator
2013	\$50,000	90
2014	-	-
2015	\$60,000	150

Given the above information, which of the following statements is true?

- (a) Real GDP increased from 2013 to 2015.
 - (b) The value of nominal GDP in 2014 must be located between the nominal GDP of 2013 and 2015.
 - (c) The price level, measured by the deflator, is higher in 2014 than in 2013.
 - (d) Real GDP in 2014 is definitely higher than nominal GDP in 2014.
4. A steel company on *Nidavellir* sells metal *Uru* to the Dwarves for \$50. The Dwarves use the metal to forge a weapon, the *Stormbreaker*, and sell it for \$400. Taken together, how much do they contribute to *Nidavellir's* GDP?
 - (a) \$50
 - (b) \$350
 - (c) \$400
 - (d) \$450

5. Suppose in 1995, real GDP is \$100 and the GDP deflator is 50. In 1996, the nominal GDP is \$15,000 and the GDP deflator is 150. Given this information and holding everything else constant, what is the growth rate of real GDP from 1995 to 1996?
- (a) 50%
 - (b) 150%
 - (c) 200%
 - (d) 9900%
6. GDP is defined as the market value of all:
- (a) final goods produced domestically and abroad by the citizens of a country over a given period of time.
 - (b) intermediate and final goods and services produced in a country over a given period of time.
 - (c) final goods and services produced in a country over a given period of time.
 - (d) intermediate and final goods and services produced domestically and abroad by the citizens of a country over a given period of time.
7. Which of the following transactions would be included in GDP for the U.S.?
- (a) Aaron, an U.S. citizen, buys a Puffin ceramic mug in Iceland.
 - (b) Your neighbor buys some illegal drugs.
 - (c) Malik, a Pakistan citizen, buys an Audi A6 in Irvine, California.
 - (d) You rake the leaves in your backyard.
8. You visit Leonidas's website of a famous Belgian Chocolates maker and purchase \$300 worth of Dark Chocolate Assortment that is to be shipped from Belgium to your apartment at Mesa Court. As a result of this transaction:
- (a) Belgium GDP falls by \$300 and U.S. GDP is unchanged
 - (b) Belgium GDP rises by \$300 and U.S. GDP falls by \$200
 - (c) Belgium GDP falls by \$300 and U.S. GDP rises by \$200
 - (d) Belgium GDP rises by \$300 and U.S. GDP is unchanged
9. Answer the questions based on the chart below (use 2014 as base year):

Year	Price of good A	Quantity of good A	Price of good B	Quantity of good B
2014	\$30	900	\$100	192
2015	\$31	1000	\$102	200
2016	\$36	1050	\$100	205

- (a) Compute nominal GDP in 2014.
 - (b) Compute real GDP in 2015.
 - (c) Compute the GDP deflator in 2016.
10. Refer to the table:

Year	2008	2009
Nominal GDP	\$10,000	\$15,000
Real GDP	\$9,500	\$10,500

Calculate the rate of increase in the price level from 2008 to 2009. Use the percent change in the GDP deflator.

11. One bag of oranges is sold for \$6.00 to a company that turns them into juice which is sold to consumers for \$12.00. Another bag of oranges is purchased by a grocery store for \$6.00 who then sells it to a consumer for \$7. Taking these four transactions into account, how much is added to GDP?
 - (a) \$25
 - (b) \$19
 - (c) \$31
 - (d) \$7
12. In the economy of Ukzten in 2010, consumption was \$3000, GDP was \$5500, government purchases were \$1000, imports were \$2000, and investment was \$1000. What were Ukzten's exports in 2010?
 - (a) -\$1500
 - (b) \$500
 - (c) \$2500
 - (d) \$1500
13. Which of the following examples of production of goods and services would be included in U.S. GDP?
 - (a) Ash, an American citizen, grows marijuana in his Seattle home and sells it to his friends and neighbors.
 - (b) Brock, an American citizen, grows peaches for his family in the back yard of their Atlanta home.
 - (c) Misty, a Canadian citizen, grows sweet corn in Minnesota and sells it to a grocery store in Canada.
 - (d) None of the above examples of production would be included in U.S. GDP.
14. A recession has traditionally been defined as a period during which
 - (a) nominal GDP declines for two consecutive quarters
 - (b) real GDP declines for two consecutive quarters
 - (c) nominal GDP declines for four consecutive quarters
 - (d) real GDP declines for four consecutive quarters
15. Which of the following transactions adds to U.S. GDP for 2018?
 - (a) In 2018, Marvin Windows manufactures 20 windows that will eventually be installed in an office building in Minneapolis. The windows remain in Marvin's inventory at the end of 2018.
 - (b) An Irish marketing consultant works in Boston during the summer of 2018 and earns \$30,000 during that time.
 - (c) When Tim and Tina were both single, they lived in separate apartments and each paid \$750 in rent. Tim and Tina got married in 2018 and they bought a house that, according to reliable estimates, could be rented for \$1,550 per month.
 - (d) All of the above transactions add to U.S. GDP for 2018.
16. A Mexican tortilla manufacturer imports \$200,000 of corn from the U.S. and uses the corn to produce tortillas that sell to Mexican consumers for \$300,000. As a result of these transactions:
 - (a) Mexican GDP rises by \$300,000 and U.S. GDP is unchanged.
 - (b) Mexican GDP rises by \$100,000. and U.S. GDP rises by \$200,000.
 - (c) Mexican GDP is unchanged and U.S. GDP rises by \$200,000.
 - (d) Mexican GDP is unchanged and U.S. GDP rises by \$300,000.