

The country of Hornetville produces two goods: footballs and basketballs. Below is a table showing prices and quantities of output for three years:

Year	Price of Footballs	Quantity of Footballs	Price of Basketballs	Quantity of Basketballs
2002	\$10	120	\$12	200
2003	12	200	15	300
2004	14	180	18	275

Year	Nominal GDP	Real GDP	GDP Deflator
2002			
2003			
2004			

Nominal GDP in 2002 =

Nominal GDP in 2003 =

Nominal GDP in 2004 =

Using 2002 as the Base Year:

Real GDP in 2002 =

Real GDP in 2003 =

Real GDP in 2004 =

What happens to nominal GDP between 2003 and 2004? Compare this to what happens to real GDP over the same period.

GDP deflator for 2002

GDP deflator for 2003

GDP deflator for 2004

Another example to work through on your own is presented below. Assume milk, honey, and bread are the only three goods produced in this economy.

Year	Price of Milk	Quantity of Milk	Price of Honey	Quantity of Honey	Price of Bread	Quantity of Bread
2002	\$1	100	\$2	50	\$2	100
2003	1	200	2	100	3	150
2004	2	200	4	100	2.50	180

Year	Nominal GDP	Real GDP	GDP Deflator
2002			
2003			
2004			

1. Complete the table above, assuming that 2002 is the base year.
2. Compute the annual percentage change in nominal GDP, real GDP, and the GDP deflator in 2003 and 2004.
3. Did economic well-being rise more between 2002 and 2003? Or 2003 and 2004? Explain.

This table shows the nominal and real GDP for the United States between 1978 and 1983. All figures are in billions of dollars and the base year is 1996.

Year	Nominal GDP	Real GDP
1978	\$2,296	\$4,761
1979	\$2,566	\$4,912
1980	\$2,796	\$4,901
1981	\$3,131	\$5,021
1982	\$3,259	\$4,919
1983	\$3,535	\$5,132

1.1 Plot real GDP on the graph to the right. You may round to the nearest \$100 billion when graphing. For example, real GDP is \$4,761 billion for 1978, so you should plot this as \$4,800 billion.



- 1.2 Using your graph above, describe how nominal GDP and real GDP changed over time between 1978 and 1983. Consider the following questions in your description of the data:
- How much did nominal GDP grow over this period?
 - How much did real GDP grow over this period?
 - Did nominal and real GDP grow at different rates, or roughly the same rate over this period?

Note: Recall, the percentage change (or growth rate) of a variable x is computed as

$$\% \text{ Change} = (\text{New value} - \text{old value}) / \text{old value}$$