



INDIAN SCHOOL AL WADI AL KABIR

Class: XII	Department: Commerce
Worksheet No: 5	Topic: National Income Aggregates -GDP & Welfare

FORMULAE

Nominal GDP = Output X Prices of the current year

Real GDP = output X Prices of the base year.

3. The formula used for conversion of **nominal GDP into real GDP** is:

$$\text{Real GDP} = \frac{\text{Nominal GDP}}{\text{Price Index}} \times 100$$

* Price index is an index number which shows the change in price level relating to two different years (i.e. current year and base year).

* Remember, price index of the base year is always equal to be equal to 100.

$$4. \text{ GDP Deflator (or Price Index)} = \frac{\text{Nominal GDP}}{\text{Real GDP}} \times 100$$

NUMERICALS

1. If Real GDP = 200, Price Index = 110 (Base 100), Nominal GDP?

$$\text{A: Real GDP} = \frac{\text{Nominal GDP}}{\text{Price Index}} \times 100$$

Substituting Nominal GDP = 220

2. If Nominal GDP =1200, Price Index = 120 (Base 100), Real GDP?

$$\text{A: Real GDP} = \frac{\text{Nominal GDP}}{\text{Price Index}} \times 100$$

Substituting Real GDP = 1000

3. If Real GDP = 300, Nominal GDP = 330, Price Index =? (Base 100)?

$$\text{A: Real GDP} = \frac{\text{Nominal GDP}}{\text{Price Index}} \times 100$$

Price Index = 110

4. If Real GDP = 500, Price Index = 125 (Base 100), Nominal GDP = ?

$$\text{A: Real GDP} = \frac{\text{Nominal GDP}}{\text{Price Index}} \times 100$$

Price Index = 625

5. If Nominal Income = 500, Price Index = 125 (Base 100), Real Income =?

$$\text{A: Real Income} = \frac{\text{Nominal Income}}{\text{Price Index}} \times 100$$

Real Income = 400

6. If Real Income = 400, Price Index = 100 (Base 100), nominal Income =?

$$\text{A: Real Income} = \frac{\text{Nominal Income}}{\text{Price Index}} \times 100$$

Nominal = 400

7. If Nominal GDP =15000, Real GDP = 12000 (Base 100), GDP Deflator?

$$\text{A: GDP Deflator (or Price Index)} = \frac{\text{Nominal GDP}}{\text{Real GDP}} \times 100$$

GDP Deflator = 125

**8. The value of nominal GNP of an economy = 2500 Rs crs in a particular year.
The value of GNP of that country during the same year evaluated at the same**

base year prices was Rs 3000 crs.

i. Find the value of the GNP Deflator.

ii. Has the price increased between the base year and the year under consideration?

$$A: \text{GDP Deflator (or Price Index)} = \frac{\text{Nominal GDP}}{\text{Real GDP}} \times 100$$

$$\text{GDP Deflator} = 83.3\%$$

ii. No, price has not risen. It has fallen from 100% to 83.3%