16.1 Nominal GDP and Real GDP

1. Nominal GDP refers to the GDP measured in terms of market prices in the current year.

2. Real GDP refers to the GDP adjusted for price changes. It is also called GDP in volume terms.

3. Real GDP = Nominal GDP × $\frac{\text{Price index of the base year}}{\text{Price index of the current year}}$

4. Implicit price deflator of GDP = $\frac{\text{Nominal GDP}}{\text{Real GDP}}$ × 100

5. When the percentage increase in nominal GDP is larger than the percentage increase in real GDP, the price level *(increases / decreases)*.

6. When the percentage increase in nominal GDP is *(larger / smaller)* than the percentage increase in prices, real GDP increases.

7. When the percentage decrease in real GDP is *(larger / smaller)* than the percentage increase in prices, nominal GDP decreases.

16.2 Per Capita GDP

8. Refer to the following information about a country.

Nominal GDP ($ million)	Real GDP ($ million)	Population (million)
15,000	12,000	10

Calculate the per capita real GDP and per capita nominal GDP respectively.

Per capita real GDP = $12,000 million / 10 million = $1,200

Per capita nominal GDP = $15,000 million / 10 million = $1,500

16.3 Growth Rate of GDP

9. To eliminate the effect of changes in the price level, the growth rate of *(real / nominal)* GDP is most commonly used to reflect the year-on-year changes in the economic performance of an economy.

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10. Refer to the following information about a country.

	Nominal GDP ($ million)
Year 1	18,000
Year 2	20,000

Calculate the growth rate of nominal GDP between year 1 and year 2.

Growth rate of nominal GDP = [$(20,000 – 18,000) million / $18,000 million] × 100% = 11.11%

11. The following table shows information about an economy in a certain year.

Change in real GDP	+3.0%
Change in nominal GDP	+1.5%
Change in population size	+2.1%

Based on the above information, we can conclude that

☑ the price level decreased in that year.

☑ the real output increased in that year.

☐ the per capita nominal GDP increased in that year.

☑ the per capita real GDP increased in that year.

16.4 Gross National Income (GNI)

12. Gross national income (GNI) measures the total income earned by residents of an economy from engaging in various economic activities during a specific period, irrespective of whether the economic activities are carried out within the economic territory or not.

13. GNI = GDP + Net factor income from abroad

14. Net factor income from abroad = Factor income earned by residents outside the economic territory – Factor income earned by non-residents within the economic territory

15. If the net factor income from abroad is negative, GDP will be *(larger / smaller)* than GNI.

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16. Which of the following would be deducted from Hong Kong's GDP to calculate Hong Kong's GNI?

☑ the rental income received by a Japanese man from his property in Hong Kong
☐ the salary earned by a Korean who has worked as a dance teacher in Hong Kong for 2 years
☐ the dividends earned by a Hong Kong resident from holding shares of a listed company in Japan
☐ the capital gain earned by a Korean from investing in a Hong Kong stock

17. Explain whether the following should be included in the calculation of Hong Kong's GNI.

(a) the salary earned by a Hong Kong resident who has worked in Japan for half a year

Yes. As he/she is a Hong Kong resident, the salary he/she earned is factor income earned by a resident outside the economic territory.

(b) the dividends received by an Australian resident from shares of a Hong Kong company

No. As the Australian resident is not a Hong Kong resident, the dividends he/she received are factor income earned by a non-resident within the economic territory.

16.5 Uses and Limitations of National Income Statistics

18. Which of the following are uses of national income statistics?

☑ reflection of the standard of living
☑ assessing the economic performance of an economy
☑ formulation of government policies
☑ basis for international comparison

19. Real GDP is a better measure of changes in the volume of output than nominal GDP as it removes the effect of *(price / output)* changes.

20. Given the same amount of goods and services produced, the larger the population, the *(larger / smaller)* the amount of output a person can consume on average. Per capita real GDP is a better measure to reflect people's average standard of living than real GDP.

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21. The per capita real GDP of a country may overstate the general living standard of its people because

- ☐ it does not consider the size of population.
- ☑ it does not reflect whether the income distribution has become more uneven.
- ☑ it does not reflect a reduction in people's leisure time.
- ☑ it does not reflect an increase in the proportion of capital goods and national defence in total output.
- ☑ it does not reflect a reduction in unreported production activities.
- ☑ it does not reflect the problems of pollution and traffic congestion caused by production.

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