

3. One may summarize the three firms in a little table;

	A	B	C
1. Sales; (valye of goods produced)	600	2,000	400
2. Wages, Interest, Rent	440	1,200	260
3. Value of Intermediate inputs	0	600	0
Profit	160	200	140

(a) Define and calculate value added by each firm A, B and C.

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(b) Calculate GDP of this economy.

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6. Consider the following economy that is producing only goods A (apples) and goods B (bananas). Prices and quantities for 2005 and 2015 are displayed in the following table:

Goods	2005			2015		
	P	Q	$P_t Q_t$	P	Q	$P_t Q_t$
A (Apples)	40	125	5,000	60	100	6,000
B(Bananas)	100	50	5,000	80	75	6,000
total			10,000			12,000

- (a) Calculate the Nominal GDP, the Real GDP (using 2005 prices) and the GDP deflator in each year; 2005 = base year

$$\begin{aligned}
 rGDP^{2005} &= \sum_i P_i \cdot Q_i \\
 &= (\dots \times \dots) + (\dots \times \dots) \\
 &= \dots
 \end{aligned}$$

$$\begin{aligned}
 rGDP^{2015} &= \sum_i P_i \cdot Q_i \\
 &= (\dots \times \dots) + (\dots \times \dots) \\
 &= \dots
 \end{aligned}$$

$$\begin{aligned}
 GDP \text{ deflator}_{2005} &= \frac{GDP_{20\dots}}{\text{real GDP}_{20\dots}} \times 100 \\
 &= \dots
 \end{aligned}$$

$$\begin{aligned}
 GDP \text{ deflator}_{2015} &= \frac{GDP_{20\dots}}{\text{real GDP}_{20\dots}} \times 100 \\
 &= \dots
 \end{aligned}$$

- (b) Calculate the Nominal GDP, the Real GDP (using 2015 prices) and the GDP deflator in each year; 2015 = base year

$$\begin{aligned}
 rGDP^{2005} &= \sum_i P_i \cdot Q_i \\
 &= (\dots \times \dots) + (\dots \times \dots) \\
 &= \dots
 \end{aligned}$$

$$\begin{aligned}
 rGDP^{2015} &= \sum_i P_i \cdot Q_i \\
 &= (\dots \times \dots) + (\dots \times \dots) \\
 &= \dots
 \end{aligned}$$

$$\begin{aligned}
 GDP \text{ deflator}_{2005} &= \frac{GDP_{20\dots}}{\text{real GDP}_{20\dots}} \times 100 \\
 &= \dots
 \end{aligned}$$

$$\begin{aligned}
 GDP \text{ deflator}_{2015} &= \frac{GDP_{20\dots}}{\text{real GDP}_{20\dots}} \times 100 \\
 &= \dots
 \end{aligned}$$

7. The data of a country is given as follows.

Transfer Payments	\$54
Interest Income	\$150
Depreciation	\$36
Wages	\$67
Gross Private Investment	\$124
Business Profits	\$200
Indirect Business Taxes	\$74
Rental Income	\$75
Net Exports	\$18
Government Purchases	\$156
Household Consumption	\$304

(a) Calculate GDP using Expenditure Approach.

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(b) Calculate GDP using Income Approach

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8. Explain why two countries with the same level of GDP per capita are likely to have different standards of living. Suppose GDP per capita increases in both countries, explain why the standard of living in both countries might fall.

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