

**Exercise 1.**

A steel manufacturer produces steel worth 4,000, of which  $\frac{1}{4}$  is sold to a machinery manufacturer and  $\frac{3}{4}$  to a car manufacturer. The machines are sold to a car manufacturer for PLN 2,000. The car manufacturer also buys tires from the manufacturer for PLN 500. The result is cars worth PLN 5,000, of which  $\frac{1}{5}$  is exported. Please calculate GDP in three ways.

Goods	Seller	Buyer	Transaction value	Value Added	Final goods expenditure	Income from means of production
Steel	Steel producer	Machinery manufacturer				
Steel	Steel producer	Car manufacturer				
Machinery	Machinery manufacturer	Car manufacturer				
Rubber	Rubber manufacturer	Car manufacturer				
Cars	Car manufacturer	Domestic consumers				
Cars	Car manufacturer	Foreign consumers (exports)				
		<b>Suma</b>				

**Exercise 3**

Economy data:

Household Consumption Expenditure	2000
Gross private domestic investment (gross capital formation)	800
Net private domestic investment (net capital formation)	600
Government spending on purchasing goods and services	800
Personal income taxes	300
Government Transfers	500
Tax revenues for VAT and excise duty	600
Export	500
Import	400
Income from foreign property	400
Social Security contributions (ZUS)	500

What is the Gross National Product (GNP)?

What is the state budget balance?

How much is your current account balance?

How much is the depreciation

**Task 4**

Data on the economy: GNP = 950, A = 360, Te = 210, subsidies = 0. Calculate: PNN, DO.

**Task5.**

Data on the economy: C = 1200, I = 400, G = 300, TR = 200, interest on public debt = 100, T = 400. Subsidies and depreciation are ignored. Remember that DOD = C + S. Calculate: GDP, S, Sg (government savings).

**Task 6.**

Data about the economy: income from labor (w) = 300, income from capital (k) = 40, Td = 80, S = 10, TR = 55. Calculate: DOD.

**Task 7.**

Data on the economy: GNP<sub>market\_prices</sub> = 400, A = 50, net income from ownership abroad = 5, subsidies = 6, Td = 40, Te = 70. Calculate: PNN<sub>producer\_prices</sub>, GDP, DN.

**Task 8.**

Economy data:  $C = 2300$ , Gross = 1800,  $G = 1900$ ,  $TR = 400$ ,  $X = 600$ ,  $Z = 800$ , net income from property abroad = - 200,  $A = 200$ ,  $T_d = 200$ ,  $T_e = 300$ , taxes on corporate profits = 100, undistributed corporate profits = 50, Social Insurance Institution = 50, interest on public debt = 100. Calculate: GDP, GNP, PNN, DN, DOD, DO.

**Task 9.**

Data on the economy: Inetto = 220,  $C = 980$ , , undistributed corporate profits = 155, interest on public debt = 10. Calculate: GNP, PNN, DN, DOD, DO.

**Task 10.**

In Neverland, 40% of GDP is consumption. Investments amounted to PLN 400 billion, and the government spent PLN 250 billion, of which 60% were transfers. Neverland exported goods worth a total of PLN 300 billion, which is 1/3 more than imports. Calculate: GDP, C, G, Z, NX.

**Task 11.**

Describe three equivalent ways of measuring GDP categories (answer approximately 8 lines of text).

**Task 12 (question for a test)**

Based on OECD data, indicate in 2020 country with the highest/lowest GDP. And the country with the highest and lowest growth rates.