

ECONOMIC INDICATORS AND POLICY

Calculating GDP and Interpreting the Business Cycle

Detailed practice, calculation, decision-making, and assessment

GRADES 9-12	TIME 2 x 42 min	GROUPING I / pairs / whole	PRODUCT Brief
YOUR CHALLENGE Classify expenditures, calculate GDP, distinguish nominal from real output, and interpret a fictional business-cycle dashboard.			

Economic Indicators Are Clues That Must Be Defined, Calculated, and Interpreted Together

Gross domestic product measures the value of final goods and services produced within a country during a period. Real GDP adjusts for price change, making it more useful for comparing production over time. No single quarterly figure describes every part of the economy.

Term	Student-friendly meaning
GDP	Value of final goods and services produced within a country during a period.
Consumption	Household spending on final goods and services.
Investment	Business fixed investment, residential investment, and inventory change under GDP rules.
Government purchases	Government spending on goods and services included in GDP.
Net exports	Exports minus imports.
Real GDP	GDP adjusted to remove price-level change.
CLASSROOM USE All people, employers, figures, brackets, and documents in this packet are fictional. Never place a real Social Security number, employer ID, bank number, or tax document in classroom work.	

Part 1 - Classify GDP Expenditures

Use C + I + G + X - M. Classify fictional final expenditures.

Transaction	Amount	Component	Included amount/sign
Household buys new local laptop	\$1,200		
Business buys new machine	\$8,000		
City buys fire equipment	\$15,000		
Domestic firm exports service	\$4,000		
Household buys imported phone	\$900		
Used bicycle sale	\$300		

Explain why imports are subtracted and why the used bicycle is excluded from current production.

Part 2 - Calculate Nominal GDP

Fictional economy totals (millions): C=520, I=110, G=160, X=75, M=95.

Component	Amount	Operation	Contribution
C	\$520		
I	\$110		
G	\$160		
X	\$75		
M	\$95		
GDP			

Show the complete equation.

Part 3 - Compare Nominal and Real Output

Year A nominal GDP = \$760 million, price index = 100. Year B nominal GDP = \$807.5 million, price index = 106.25. Real GDP = nominal GDP / (index/100).

Measure	Year A	Year B	Change
Nominal GDP			
Price index			
Real GDP			
Nominal growth			
Real growth			

Explain why nominal growth can differ from real growth.

Part 4 - Interpret a Fictional Indicator Dashboard

Compare three quarters.

Indicator	Q1	Q2	Q3	Pattern/limit
Real GDP growth	2.5%	-1.0%	0.5%	
Unemployment rate	4.2%	4.8%	5.0%	
Consumer spending growth	2.0%	-0.5%	0.2%	
Business investment growth	3.0%	-4.0%	1.0%	

Describe slowing, contraction, or recovery signals without declaring an official recession from this table alone.

Part 5 - Write an Economic-Activity Brief

Explain production, price adjustment, and the mixed Q3 evidence.

Brief check	My evidence
GDP equation	
Imports	
Nominal GDP	
Real GDP	
Nominal/real difference	
Q2 evidence	
Q3 evidence	
Qualified conclusion	

Write 150-200 words using at least six figures and two limitations.
