

ECON 219 Quiz I

General recommendations:

- Read questions thoroughly.
- Please respond on this copy.
- You have 20 minutes.
- Work individually.
- There are two pages.
- Good luck!

Your name:

1. Circle the appropriate answer on each of the following items. Circle multiple items if necessary:
 - (a) Which of the following relations is correct, \ln being the natural logarithm?
a) $\ln 0.04 \approx 0.04$; b) $\ln 0.04 \approx 1.04$; c) $\ln 1.04 \approx 0.04$; d) $\ln 1.04 \approx 1.04$.
 - (b) The following items are included when computing GDP with the expenditure approach: 1) investment; 2) government wages; 3) consumption; 4) value added.
 - (c) Suppose we have the following information about a tie manufacturer: tie sales \$1300M, cotton purchases \$750M, wages \$400M, interest on business loans \$100M, profits \$50M. What is the contribution of this producer to GDP using the income approach? 1) \$550M; 2) \$500M; 3) \$450M; 4) \$400M.
 - (d) How can we characterize the behavior of consumption through the business cycle in the United States? 1) consumption fluctuates more than output; 2) the consumption of non-durables and services fluctuates less than the consumption of durables; 3) consumption is procyclical; 4) consumption lags the business cycle by two quarters.
2. How much has real output grown using base year 1 in the following example? Detail your calculations.

	oranges	apples
Year 1 price	\$3	\$7
Year 1 quantity	10	10
Year 2 price	\$4	\$6
Year 2 quantity	12	15

3. Explain why we need to remove the trend from the data to analyse its business cycle properties.

4. Look at the statistics from this fictitious economy. What stylized facts would you conclude?

Variable	std. dev.	Correlation of GDP with						
		x_{t-3}	x_{t-2}	x_{t-1}	x_t	x_{t+1}	x_{t+2}	x_{t+3}
GDP	2.00	0.35	0.55	0.80	1.00	0.80	0.55	0.33
Govt. exp.	3.00	0.25	0.45	0.60	0.35	0.20	0.05	-0.05
CPI	2.00	0.20	0.25	0.35	0.45	0.30	0.20	0.10

5. Show graphically an example of a variable leading GDP.

Bonus question: Why would imports be more procyclical than exports?