

# ECO402: Intermediate Macroeconomics

## Homework 1

Covers Chapters 1, 2, 24

Due: Saturday May 16, 2020 at 5pm

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**Instructions:** Please upload an answer document on Canvas by the due date above, preferably a PDF document or clear pictures of your handwritten assignment. For handwritten submissions, you are not required to print out the questions to submit the answers. You can just use a separate piece of paper.

Total Points: 14

1. Robert Lucas and Thomas Sargent focused on the importance of expectations in determining economic variables. (T/F)
2. Stagflation is the combination of high inflation and unemployment. (T/F)
3. Ben Bernanke in addition to being a former Federal Reserve Chairman was among the scholars who developed an extension of the New Keynesian model which incorporated financial frictions. (T/F)
4. Suppose that Supply is given as  $Q_s = 100 + 4P$  and demand is given as  $Q_d = 400 - 2P$ . What is the market equilibrium?
5. What is the steady state value for a process  $y$  that has the following law of motion:

$$y_t^a = y_{t-1}^b c$$

6. Suppose we have the following function:

$$G(x, y) = x^2 + y^{-2}$$

What is the sign of the relationship between  $G$  and  $x$  and  $y$  respectively?

7. Okun's Law shows that when output growth is lower than normal, the unemployment rate tends to rise. (T/F)
8. Suppose you are measuring GDP as the final value of all the goods and services produced in the economy. A seafood restaurant buys \$100 worth of seafood from a fisherman. What is the effect on your measurement of GDP?

9. What value of the Gini coefficient is associated with perfect equality? Perfect inequality?
10. In the United Federation real GDP was 2 trillion credits, and the GDP deflator was equal to 1.4. What was nominal GDP?
11. If the CPI in the US was 241.863 in October of 2016 and 237.949 in October of 2015 what is the year to year inflation rate?
12. The total number of men and women of working age in Westeros is 75 million. Only 50 million have a job, and 15 million are looking for jobs. What are the unemployment and labor participation rates?
13. Find NGDP, chained RGDP using Year 0 as the base year.

Table 1: Pawnee Economy

	Quantity	Year 0 \$ Price
NutriYum Bars	5,000	\$5
Paunch Burger 128-ounce soda	20,000	\$1
Hand carved wooden canoe	10	\$30,000
NGDP		
	Quantity	Year 1 \$ Price
NutriYum Bars	5,500	\$6
Paunch Burger 128-ounce soda	30,000	\$1
Hand carved wooden canoe	15	\$50,000
NGDP		

14. San Junipero has only four residents. Their incomes are \$20,000, \$40,000, \$40,000, \$100,000. Calculate the Gini coefficient for San Junipero.