Name: _____   Section (Circle One):   7:45am-9:10 9:25am-10:50

ECO 120: Macroeconomics
In-class Exercise: Measuring Production and Prices

Learning Objectives:

- LO3: Define, compute, and explain limitations to measures of the macroeconomy, including gross domestic product, inflation, and unemployment.

- GELO 1: Students will be able to use mathematical and logical methods to solve problems.

Directions: Work in groups of up to four people and answer the following questions. All papers will be collected, but only one member's paper will be randomly selected and graded and all members of the group will receive the same grade.

By signing below, you agree that the following work represents the efforts of everyone in the group, and you are willing to accept as your own grade for the group project the grade earned from this representation of your group's work. Every member must agree to these terms to earn a non-zero grade for this assignment.

_____   _____   _____
Signature Group Member 1   Print Name   Date

_____   _____   _____
Signature Group Member 2   Print Name   Date

_____   _____   _____
Signature Group Member 3   Print Name   Date

_____   _____   _____
Signature Group Member 4   Print Name   Date

1. (10 points) Define real and nominal GDP. Which is more useful as a measure of economic well being? Why?

2. (10 points) Describe two aspects of economic well being that real GDP does not measure.

For the problems below, suppose an economy produces only veggie burgers and vegetarian chili, and the prices and quantities that prevailed for the last two years were given by,

	2008		2009	
	Price	Quantity	Price	Quantity
Veggie Burgers	$2	10	$3	12
Veggie Chili	$4	5	$5	7

3. (10 points) Compute nominal GDP for 2008 and 2009.

4. (10 points) Use 2009 as a base year and compute real GDP for 2008 and 2009.

5. (10 points) Were your answers for the two problems above the same for 2008 and 2009? For each year, explain why or why not.

6. (10 points) Compute the growth rate of production between 2009 and 2009.

7. (10 points) Compute a measure of the price level for 2008 and 2009, using 2009 as a base year.

8. (10 points) What was the **inflation rate** from 2008 to 2009, using 2009 as a base year?

9. (10 points) Suppose in 2008 you earned $8.50 per hour working full time. In 2009 you earned $10 per hour working full time. What was the growth rate of your wages? In terms of purchasing power of wages, do you think you earned more in 2008 or 2009? Explain. Hint: Consider your answer to the previous question and how that is relevant.

10. (10 points) The **real wage** is a measure of the real purchasing power of wages in terms of a base year. It is given by the following formula:

$$\text{real wage} = 100 \times \left(\frac{\text{nominal wage}}{\text{price level}} \right)$$

Compute the real wage for 2008 and 2009 using 2009 as a base year. Which is higher? Is that what you expected? Explain.