

NAME: _____

Cooleconomics.com
Principles of Economics

Quiz 1 version 1 Answers

Instructions (Read Carefully and Follow Precisely):

You have 45 minutes to complete this closed-notes, closed-book, 100-point exam. (You may use a 1-sided 8.5x11" notes sheet and a calculator whose memory and programming are cleared.)

You may not collaborate with any other person in any way on this exam.

Write legibly and coherently. **You MUST show all calculations to receive any credit for answers that require calculations** (Answers might not be whole numbers). Label all axes, curves, and points on graphs. Good luck!

1. (10 points) Name 2 costs of inflation; describe each cost in one or two sentences each.

Shoe leather costs: Wasted time allocating wealth between cash and interest-bearing assets when inflation is high.

Menu costs: Waste of resources raising advertised prices due to inflation

Unexpectedly high inflation capriciously redistributes purchasing power from lenders to borrowers.

Uncertainty of high, unstable inflation makes planning difficult, reducing long term economic growth.

2. (30 points). An economy with no government or foreign sector is represented below.

$$C = 500 + .6Y \quad I = 600$$

Calculate the following:

Equilibrium gross domestic product _____

Equilibrium personal consumption expenditures _____

Equilibrium personal savings _____

Change in investment required to achieve full employment GDP of 4000. _____

(Along with your specific numerical response, clearly indicate whether investment must *increase* or *decline*)

$$Y = C + I = 500 + .6Y + 600 = 1100 + .6Y$$

$$Y = 1100 + .6Y$$

$$.4Y = 1100 \rightarrow Y = 1100/.4 = 2750$$

$$C = 500 + .6(2750) = 2150$$

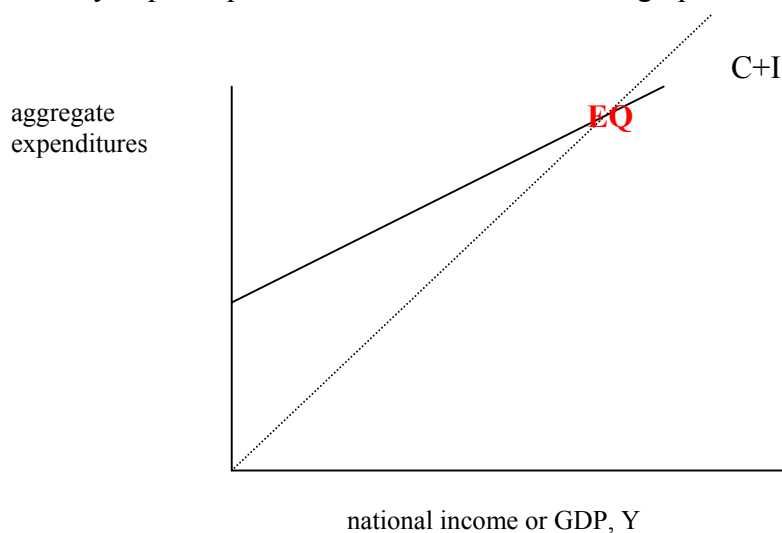
$$S = Y - C = 600$$

$$\text{change in } I \times 1/(1-\text{slope of AE}) = \text{change in GDP}$$

$$\text{change in } I \times 2.5 = 1250$$

$$\text{change in } I = 1250/2.5 = +500 \text{ (an increase of 500)}$$

Carefully depict equilibrium national income on a graph below:



2. (25 points) BuffyLand is a fake economy in which only 2 goods are produced--wheat and corn. Below is some BuffyLand economic information. Fill in the blank spaces.

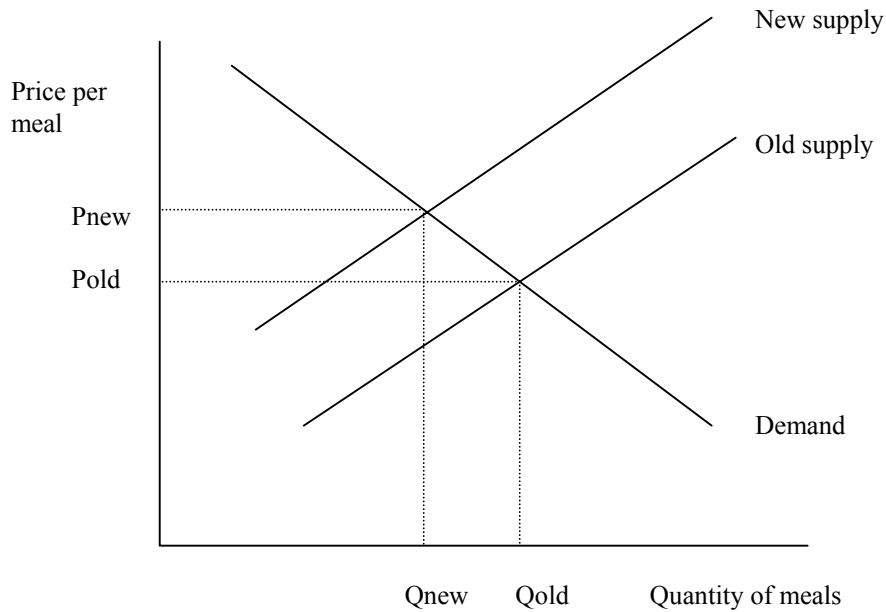
<u>Year</u>	<u>Wheat</u>		<u>Corn</u>		<u>Nominal GDP</u>	<u>Real GDP</u>	<u>GDP Deflator</u>
	<u>Price</u>	<u>Quantity</u>	<u>Price</u>	<u>Quantity</u>			
1998	20	_____	40	200	_____	10000	100
1999	25	40	_____	800	9000	_____	_____

Calculations (required):

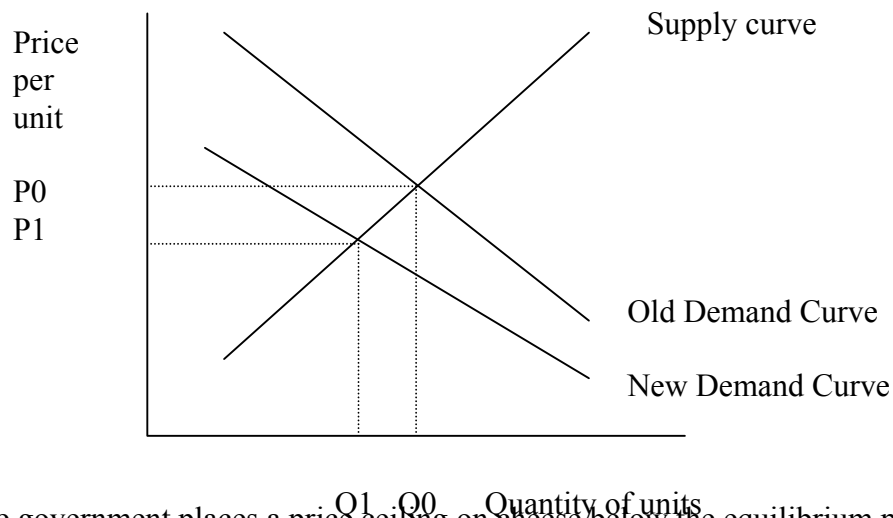
<u>Year</u>	<u>Wheat</u>		<u>Corn</u>		<u>Nominal GDP</u>	<u>Real GDP</u>	<u>GDP Deflator</u>
	<u>Price</u>	<u>Quantity</u>	<u>Price</u>	<u>Quantity</u>			
1998	20	<u>_100_</u>	40	200	<u>10000</u>	10000	100
1999	25	40	<u>_10_</u>	800	9000	32800	<u>_27.44_</u>

3. (25 points) In a fake economy the cheese market is currently in equilibrium. Use three competitive market graphs (one for each event) to illustrate how the **cheese market** will be affected if each of events (a)-(c) below were to (separately) occur. (Fully label your graphs to clearly show how the market is affected; lack of complete labeling will result in large point deductions.)

a) Workers in cheese production facilities get big increases in their wages



b) The price of bread (often consumed with cheese) skyrockets.



c) The government places a price ceiling on cheese below the equilibrium price.

4. (10 points) Behold the following information on a fake economy:

Compensation of employees	200
Disposable personal income	250
Gross private domestic investment	20
Depreciation	30
Transfer Payments	40
Interest payments by consumers to business	3
Net Exports	25
(net) indirect business taxes	15
Personal savings	50
Net interest	20
Personal transfer payments to foreigners	12
Government purchases	72
Net factor payments to rest of world	4
Government transfer payments	64
Imports	21

Using some of the above information, calculate:

GDP _____ NI _____

Calculations (required):

$$\text{GDP} = C + I + G + (\text{EX}-\text{IM})$$

$$\text{GDP} = C + 20 + 72 + 25$$

what is C?

$$C = Y_d - S - \text{personal transfers to foreigners}$$

$$- \text{interest payments by consumers to business}$$

$$C = 250 - 50 - 12 - 3$$

$$C = 185$$

$$\text{GDP} = 185 + 20 + 72 + 25 = 302$$

$$\text{NI} = 302 - 4 - 30 - 15 = 253$$