

NAME _____ TA _____ Section# _____

Section 1 (20 points)

Fill in the item from the list below that is most closely associated with each of the twenty phrases that appear on the next two pages. Note: Some of the listed items may provide the correct answer for more than one of the phrases that follow. Conversely, many of the items listed do not correspond to any of the phrases on the next two pages.

- | | |
|------------------------------------|---------------------------------|
| Absolute Advantage | Karl Marx |
| Adam Smith | Lehman Brothers |
| Aggregate Demand | Macroeconomics |
| Aggregate Expenditure Model | Malthusian Dilemma |
| Closed Economy | Microeconomics |
| Comparative Advantage | MPC |
| Complements | MPS |
| Consumption | Net Exports |
| Contract enforcement | Net National Product |
| CPI | Normative Analysis |
| CPI: Core | Okun's Law |
| CPI: Core Services | Open Economy |
| Cyclical Unemployment | Opportunity Cost |
| Defense spending | Paul Krugman |
| Deflation | PCE |
| Disinflation | Positive Analysis |
| Donald Trump | Production Possibility Frontier |
| Final Sales | Property rights |
| Final sales to domestic purchasers | Quit ratio |
| Ford | Regression analysis |
| Frictional Unemployment | Scarcity |
| GDP Deflator | Seasonal Adjustment |
| General Motors | Social Security Payments |
| Government Expenditure | Sticky Wages |
| Gross Domestic Product | Structural Unemployment |
| Household Production | Substitutes |
| Household Survey | The Great Depression |
| Hyperinflation | The Great Recession |
| Investment | U3 unemployment rate |
| J.K. Galbraith | U6 unemployment rate |
| John M Keynes | Utility function |
| John Oliver | |

Section 1 (20 points)

1. _____ The amount by which saving will increase for each extra dollar that income increases.
2. _____ A circumstance in which the overall price level is falling.
3. _____ A historical period that greatly influenced Keynes' understanding of economics.
4. _____ Without using this statistical technique, reported retail sales growth would be very high every December.
5. _____ An index of consumer prices that excludes food and energy
6. _____ When the price of A jumps up, you consume less of item B. What are these items?
7. _____ Economic analysis that is concerned with the world as it is, not focused on the world as some would like it to be.
8. _____ Unemployment resulting from individuals who are taking some time between jobs while they search for a new one.
9. _____ The dollar value of the flow of all final goods and services produced on U.S. soil.
10. _____ Yale Professor Truman Bewley's 1999 book provides insights about this key issue that many think contributes to recessions.

11. _____ The price index used to calculate real GDP from nominal GDP.
12. _____ Relates output growth to changes in unemployment.
13. _____ The largest component of GDP in the US, accounting for approximately 70%.
14. _____ Overall US government spending greatly exceeds dollars collected. Name one large US government outlay that contributes to the government deficit but does NOT count toward government expenditures in GDP.
15. _____ Best describes the type of inflation experienced by Germany in 1918-1923.
16. _____ A phenomenon that many think explains the recurring pattern of labor markets failing to achieve equilibrium in recessions.
17. _____ Declared bankruptcy in the Great Recession.
18. _____ The official data source used to compute the unemployment rate.
19. _____ The highest valued alternative that must be given up to gain another activity.
20. _____ A Scottish Economist who talked of an 'invisible hand' guiding the economy.

SECTION 2 (12 POINTS)

In Shangri-La people eat using silverware or chopsticks. In 2016, both markets were in equilibrium. Chopsticks cost \$2/pair and 6 million pair were sold.

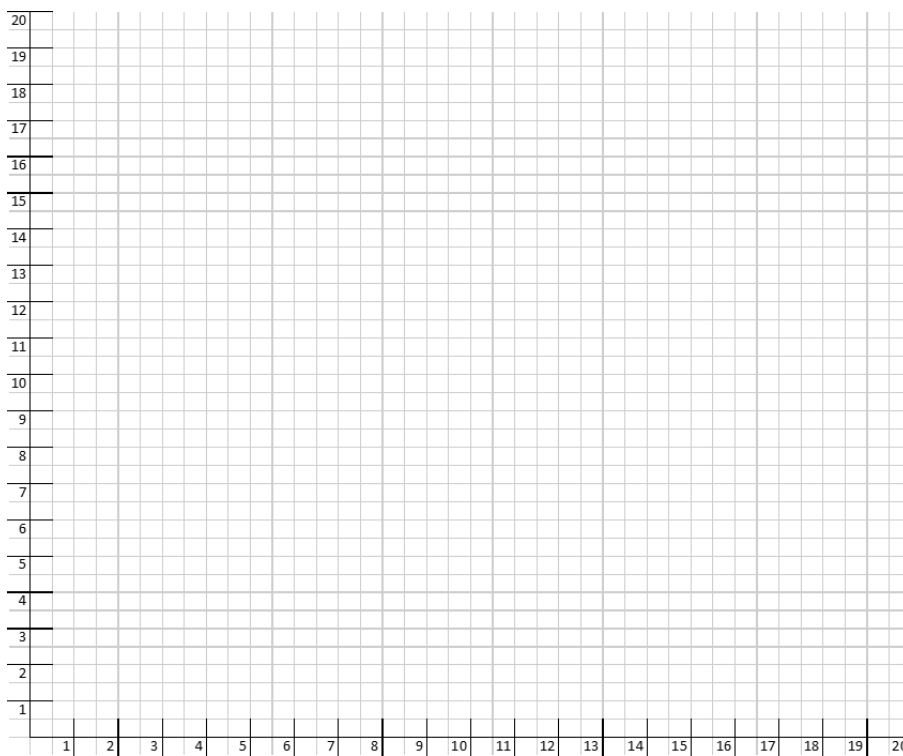
The characteristics of the silverware market are as follows:

$$Q_s = 2.5P_f - 10$$

$$Q_d = 18 - P_f$$

(P_f = the price per set of silverware)

1. Using the standard axes for supply and demand label the chart below and draw the supply and demand curves for the silverware market. (2 points)



2. Algebraically derive equilibrium price and quantity in the silverware market. Label the equilibrium price and quantity on the graph. (3 points)

Section 3 (8 points)

	nominal	real	GDP
	GDP	GDP	DEFLATOR
year			
2010	7200	8000	
2020	10500	10500	
2030	15600	13000	
2040	23700	15800	

1. Use the data in the table, calculate the GDP deflator in each year, and fill the four deflators into the table. (2 points)

2. Which year is the base year? Briefly explain. (2 points)

3. What was the annualized rate of inflation, from 2020 through 2030? (4 points)

Section 4 (20 points)

The 1,000 workers who reside on the island of Atlantis harvest coconuts and fish. The total output in 2016: **100 coconuts** **200 fish**

The Island King commissions a study. It is determined that islanders production in 2016 efficiently used labor in its fishing and coconut collection. Any attempts to increase coconut output would require lost fish collection. More specifically, the study finds that moving workers to increase coconut collection by one reduces the fish caught by five. Likewise, a reduction of one coconut harvested allows five more fish to be caught.

1. Using the data from the table above and the insights of the commissioned study, create a graph that represents the range of production possibilities for annual coconut/fish output levels for Atlantis: (4 points)

2. It turns out that the Island of Xanadu, only a few miles away, also has 1,000 workers. Their efficiently produced output in 2016 equaled 500 fish and 500 coconuts. They also know that for one extra fish caught, they must give up one coconut. Show, arithmetically, which country has absolute advantage in fish production and in coconut production. (4 points)

3. Show, arithmetically, which island has comparative advantage in fish production? (4 points)

4. Based upon your answers to Q3 and Q4, propose a trade that would benefit both countries.
(3 points)

5. Draw a set of combined output possibilities from the two Island nations. (5 points)

Section 5 (20 points)

Here are some facts about the island of Mensa in 2020:

Working age population of 100 million. (working age population =16 years & older)

80 million are aged 16-64. The remainder are 65 years old or older.

The labor force participation rate: 16-64 year olds, stable at 80%.

The labor force participation rate: 65 and older, stable at 25%.

Growth in the working age population is expected to be 10 million over the next 10 yrs.

The number of 16-64 year olds, however, is expected to remain the same.

The unemployment rate is 10%, and it is expected remain at 10%.

The Mensa government has one role. It collects money from workers, using those funds to support its payments to all people who are over 64 years old.

Each year, the government collects, on average, \$1,000 per worker.

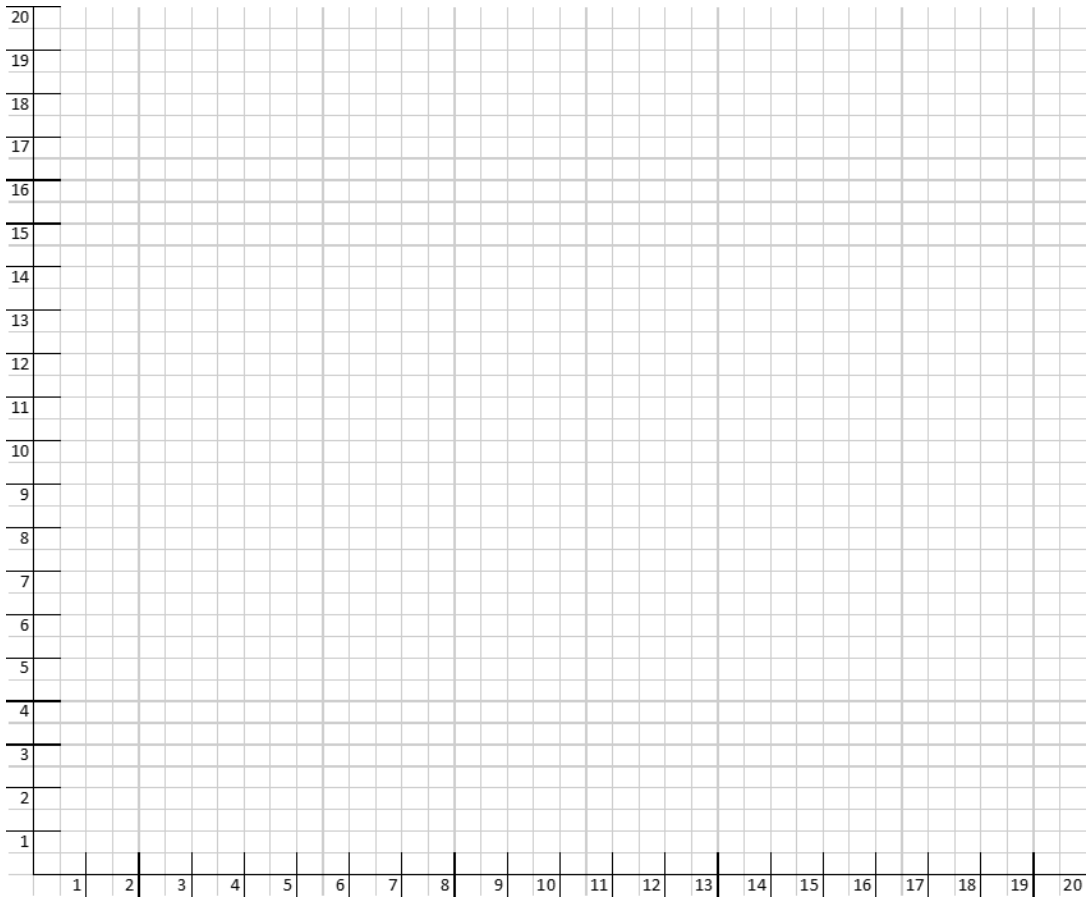
Each year, they pay out, on average, \$3,000 per persons, 65 and older.

1. What is Mensa's overall labor force participation rate? (2 points)

2. How many working aged people are employed, in 2020, on Mensa? (3 points)

3. How many working age people on the island of Mensa, in 2020, do not have jobs? (3 points)

Section 6 (20 points)



Consider an open economy with these characteristics in 2018 (\$ trillions):

Autonomous consumption = 3.5 MPC = 0.5

Planned investment = 1 Government expenditures = 3 Net Exports = -1.5

1. Label the two axes. Draw the line that will identify the values where aggregate expenditure and income are in equilibrium. (3 points)
2. Draw and label: a) consumption b) consumption + planned investment
c) AE (3 points)
3. Identify on the chart the equilibrium value for income and AE. (2 points)

4. Algebraically derive the AE/Y equilibrium level. (3 points)

5. Suppose that actual income is 8 trillion. Is the economy in equilibrium? If not, what explains the difference between income and expenditure? (3 points)

6. Suppose a technological innovation increases planned investment, and it rises to \$3 trillion. If no other variables changed, what will be the resultant value for equilibrium income? (3 points)

7. Compare the rise for investment, in question 6.6, to the rise for equilibrium Y. By how much does Y increase? In class, we discussed two ways of answering the question. One of those approaches is to compute the new AE/Y equilibrium, as in question 6.6. What is the other method? Use that method to answer the question. (3 points)