Homework Assignment 1.

Please provide a short (a few sentences) answer to each of the questions below. Each question is worth one point.

1. Which tax is the largest source of the federal government’s revenue? Which is the second largest?

2. (problem #3 on page 17) Obesity is perceived to be a national health problem in the United States. One suggestion to deal with this problem is a “fat tax”. The idea is to levy a tax on foods containing more than a government prescribed percentage of the daily minimal fat intake. Is such a tax consistent with a mechanistic view of the government?

3. Do you think it is correct policy that the federal government is not required to finance all of its expenditures with tax revenues and is allowed to borrow? What are the implications of this policy? When do you think budget deficits are justified?

4. The Law of Demand states that there is an inverse relationship between price and quantity demanded. Is this positive or normative statement?

5. It is possible that two different economists can examine the same situation, such as effect of taxes on labor supply, and reach entirely different conclusions. Why is this so?

6. In a regression equation, what is the error term intended to capture?

7. Name at least three potential problems associated with the multiple regression analysis.

8. Consider a simple two-person exchange economy. John and Michael consume two goods – beer and books. Currently, John consumes 7 books and 5 six-packs of beer, Michael consumes 5 books and 7 six-packs of beer. John’s marginal rate of substitution of beer for books is one \( MRS_{bb}^J = \frac{MU_{books}^J}{MU_{beer}^J} \), Michael’s marginal rate of substitution of beer for books is 2 \( MRS_{bb}^M = \frac{MU_{beer}^M}{MU_{books}^M} \). Is this allocation Pareto efficient? Is so, explain why. If not, show a possible Pareto improvement. Also, is the allocation after your proposed improvement Pareto efficient?

9. What are the requirements of the First Fundamental Theorem of Welfare?

10. Consider a simple exchange economy where there are two citizens, Mr. Cortopassi and Ms. Thomas. There are only two goods to be consumed in the economy, Beer and Pretzels. The total amount of Beer is 12 units. The total amount of Pretzels is 12 units. Answer the following: Suppose Mr. Cortopassi has utility for the two goods characterized as \( U_C(B,P) = B + P \). Ms. Thomas’s utility function is \( U_T(B,P) = B + P \). Identify the points that are Pareto efficient.