

Do NOT write your name anywhere. (Canvas will tell me who turned in the assignment.) All answers must be typed, except for mathematics and graphs. Take pictures of your written answers and use your own software or to create a single PDF size A4 or 8.5" x 11". At the top of my [webpage](#), I list several online sources which will convert pictures to pdfs, merge pdfs, and resize them. However, Apple phones may require using [CamScanner](#) before using the online sources. Failure to follow these directions will cost you 10 points.

1) (25 points) What is the long-term problem facing Social Security? What are the two trends which mean the problem will get worse for at least a few decades? One proposal to reduce the problem is to raise the retirement age. How would that reduce the problem? If you were President, would you include that as part of a bundle of solutions? Explain your logic.

2) (15 points) Suppose the tax brackets are the ones to the right. If a person earns \$50,000.00, then what is that person's marginal tax rate, total taxes paid, and average tax rate? Show all work. If there is no work, then briefly explain how you got the answer.

Bracket	Rate
\$0 - \$20,000	20%
\$20,000 - \$40,000	30%
\$40,000 - \$60,000	40%
>\$60,000	50%

3) (15 points) Explain, in general terms which apply to all taxes, how an increase in a tax rate could result in less tax revenue. Then give a numerical example of an excise tax which shows how it can happen.

4) (15 points) Suppose that a country has 1000 residents of age. 620 residents have full-time jobs. 100 residents have part-time jobs. 80 residents do not have a job, but are looking for a job. 20 residents do not have a job and have stopped looking for a job. 70 are stay-at-home parents and the rest are retired. Calculate the labor force participation rate and the unemployment rate. Show all work and briefly explain how you did each calculation.

5) (20 points) Suppose that at the beginning of the year the CPI was 900 and at the end of the year it was 927. What was the inflation rate? Show all work. If the expected inflation had been 5% at the beginning of the year, then name two groups of people who were hurt by the inflation. Explain how they were hurt.

6) (10 points) Every statistic has problems with how it is calculated, which make it less useful than we would like. What are two problems with the CPI? Briefly explain why they are problems.