Place your name on the back of this sheet of paper and nowhere else. Staple your answers face up on the front of this sheet of paper. Failure to follow these directions will cost you 10 points. Your assignment will be typed, except graphs can be drawn by hand and mathematical equations can be done by hand. Failure to type it will cost you 10 points. If you use double-sided printing or print on the back of scrap paper, I will give you one additional point.

1) (15 points) Earlier this year, the governor of West Virginia proposed eliminating the state income tax. He would have financed it by increasing several taxes. One of them is to increase the sales tax from $6 \%$ to $7.9 \%$. He claims it will increase government revenue by $\$ 475,000,000$. Why is that unlikely? Explain your logic. The first link below is to his press release and the second link is to the abstract of his proposal. The second link is the important one. https://governor.wv.gov/News/press-releases/2021/Pages/Gov.-Justice-submits-legislation-to-rep eal-personal-income-tax,-putting-more-money-in-every-WVian\%27s-pocket-on-day-one.aspx https://governor.wv.gov/Documents/Governor-Justices-State-Income-Tax-Repeal-Plan-Bill-Abst $\underline{\text { ract.pdf }}$
2) Answer each part in separate paragraphs or lose points for not following directions. 2A) (10 points) What is the long-term problem facing Social Security? What are the two longterm trends which mean the problem will be getting worse for at least a decade?
2B) (15 points) One of the proposals to reduce the problem is to increase the retirement age. How would that reduce the problem? If you were the president, would you use that proposal as part of the solution? Explain your logic.
2C) (15 points) One of the proposals to reduce the problem is to eliminate the cap on taxable income. How would that reduce the problem? If you were the president, would you use that proposal as part of the solution? Explain your logic.
3) (20 points) Suppose the tax table to the right was the actual tax brackets. If a person earns $\$ 50,000$., then what are their marginal tax rate, total taxes paid, and average tax rate? Show all work. If there is no work, then explain how you got the number.
4) (25 points) Increasing a tax can reduce the revenue received. Explain the logic in a general manner which applies to all taxes. Then give a numerical example of an excise tax which shows how it is possible.

| Income Bracket | Tax Rate |
| :---: | :---: |
| $\$ 0-\$ 20,000$ | $5 \%$ |
| $\$ 20 \mathrm{~K}-\$ 40 \mathrm{~K}$ | $10 \%$ |
| $\$ 40 \mathrm{~K}-\$ 60 \mathrm{~K}$ | $15 \%$ |
| $\$ 60 \mathrm{~K}-\$ 100 \mathrm{~K}$ | $20 \%$ |
| $>\$ 100,000$ | $25 \%$ |
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