

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) Explain the equation to the right, including why π^e appears twice.
$$r = \frac{i - \pi^e}{1 + \pi^e}$$

The next three questions refer to Figure #2 in the article below. It shows the trade balance, saving, and investment as a percentage of GDP over the past 65 years..

<https://www.intereconomics.eu/contents/year/2025/number/4/article/the-trade-deficit-delusion-w-hy-tariffs-will-not-make-america-great-again.html>

- 2) (10 points) Explain why the left-hand graph depends upon the right-hand graph.
- 3) (15 points) I agree with President Trump that the trade balance is a big problem. Given those two graphs, will the tariffs President Trump place reduce the deficit? Explain your logic.
- 4) (15 points) Given the fact that President Trump got his “One Big Beautiful Bill” passed, what will that do to the balance of trade? Explain your logic. To see how the bill affects the government’s budget, go to:
<https://bipartisanpolicy.org/explainer/what-does-the-one-big-beautiful-bill-cost/>
- 5) (30 points) Use the following data to calculate GDP, GNP, NNP, NI, PI, and DPI. Consumers buy \$2000 worth of goods. Firms buy \$800 worth of machines. The government buys \$900 worth of services. We import \$220 worth of goods and export \$170 worth. We paid foreigners \$10 worth of interest and received \$12. Capital lost \$40 worth of value. Firms paid \$120 dollars of sales tax and \$30 worth of business taxes. They retained \$25 of earnings. Consumers paid \$220 worth of income tax and received \$140 worth of Social Security payments from the government. Show all work. If you need data which is not provided, assume it is zero.
- 6) (15 points) Draw the production function with labor on the horizontal axis. Illustrate the effects of an increased use of AI. Explain why the curve moved as drawn.