

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) (10 points each) Answer each part is a separate paragraph. For each of the following, determine how much GDP changes. If it does not change, then explain why not. If it does change, then determine which part of GDP. Explain how you reached that conclusion. If number in the description changes GDP but the other number does not, explain both why the one number does not and which part of GDP is changed.

- A) You buy a new shirt worth \$35.
- B) You buy \$1000 worth of stock and pay \$10 in commissions.
- C) I pay a friend to weed my garden for \$40.
- D) The government spends \$1 million to build a new office complex.
- E) I bought a \$30 compact disc from a Japanese citizen.
- F) Your grandparents get a \$500 Social Security check.

2) (25 points) Use the following data to calculate GDP, NDP, NI, PI, and DPI. Write every equation you used. If you need data which is not given, assume it is zero. Consumers buy \$500 worth of goods. Firms build \$300 worth of new buildings. The government spent \$400 on salaries. We imported \$200 worth of goods and exported \$150 worth of goods. The buildings and machines lost \$50 worth of value from wear and tear. There was \$250 worth of Social Security tax paid. The government paid out \$270 worth of Social Security. There were \$10 of retained earnings. People paid \$360 in income tax.

3) (15 points) To retire and keep your standard of living, you need to save 20 times your annual income. Suppose your retirement fund earns 6% interest and if you earn \$50,000/year. If you save for 40 years, you need to save \$502.14/month. If you save for 30 years, you need to save \$1070.05/month. There are two reasons why the extra 10 years greatly reduces how much you have to save. What are the two reasons? Explain your logic. (Note that this means you should start saving for retirement today.)