

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) According to the article linked below, what was South Africa's GDP per capita? South Africa uses the Rand, ZAR, as their currency. There are two different ways to convert from ZAR to USD. Which one is the better one to use? Explain how that is done.

<https://businesstech.co.za/news/business/629685/ranking-the-best-countries-in-the-world-including-south-africa/>

2) (25 points) Use the following data to calculate GDP, NDP, NI, PI, and DPI. Write out each equation with words then with the numbers. Show all work. If you need a number not provided, assume it is zero. Consumers bought \$1000 worth of goods. Firms built \$400 of new plants. The government paid \$500 worth of salaries. We imported \$300 worth of goods and services while exporting \$270 worth. Buildings lost \$70 worth of value. Firms paid \$200 in sales taxes and \$150 in corporate taxes. They retained \$40 in earnings. The government paid out \$90 in Social Security payments and collected \$150 in income tax.

3) (10 points each) For each event, tell me how much GDP for the USA changes. If you are not using a number, tell me why you did not use it. Which part of GDP changed? Explain your logic. (All questions referring to "you" are assuming you are an American.)

- A) You buy a used car for \$5000 which cost the dealer \$3000.
- B) You buy \$2000 worth of shares in Amazon.com and pay \$10 in commissions.
- C) An Argentinian student pays \$7000 to Bethany College for housing.
- D) The government pays your grandfather \$1000 in Social Security payments.
- E) I pay \$100 to weed my garden.

4) (10 points) Developing countries say that GDP calculations systematically underestimate their production. Explain three reasons why they are correct.