

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) (20 points) Explain $\Delta Y/Y = \Delta A/A + a_K(\Delta K/K) + a_N(\Delta N/N)$. You can treat Δ variable/variable as one variable after you define it. You do not need to explain the coefficients a_K and a_N , but I would like you to explain why they are less than 1.

2) (15 points) Draw the S/I diagram for a small country with balanced trade and no government deficit or surplus. Illustrate the effects of a government deciding to run a government deficit assuming Ricardian Equivalence does not hold. Explain why the curve(s) moved as drawn. Use your graph to explain the phrase “twin deficits”.

3) (20 points) Draw the Solow Growth Model diagram. Use it to illustrate the effects of a decrease in the population’s growth rate. Explain why the curve(s) moved as drawn. What happens to the equilibrium levels of GDP per capita and the capital-labor ratio?

4) (20 points) Draw the Solow Growth Model diagram. Use it to illustrate the effects of an increase in the saving rate. Explain why the curve(s) moved as drawn. What happens to the equilibrium levels of GDP per capita and the capital-labor ratio?

5) (15 points) Solow concluded that all countries will converge to having the same GDP per capita. We do not see that happening. Explain two reasons why we do not see this.

6) (10 points) Compared to most developed countries, the USA has a higher birth rate and a lower saving rate. What does that imply about our economy in the future? Explain your logic.