

Place your name on the back of this sheet of paper and nowhere else. Staple your answers on the front of this sheet of paper. Failure to follow these directions will cost you 1 point. 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 $\frac{\Delta K}{K} = sA - d$.

2) (20 points) Draw the Solow growth model with the per worker savings and per worker steady-state investment. Illustrate an increase in the population growth rate. Explain why the curve(s) moved as drawn. What happens to the equilibrium level of output per worker and the capital-labor ratio?

3) (10 points) The Solow growth model concludes that countries should converge to the same GDP per capita. Why doesn't this occur?

4) (10 points each) For each event, tell me what happens to M1 and M2. Explain your logic.

A) You take \$50,000 out of a CD and put it into your checking account.

B) You write a check for \$50,000 to the book store for one semester's books.

C) You take \$500 cash out of your savings account.

D) You take a loan of \$20,000 to buy a car.

5) (15 points) Why do we need more than one definition of money? I.e., why do we need M1, M2, and M3?