

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 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 $s \cdot f(k) = (n+d)k$. You can treat the left-hand side of the equation as one variable after you define it. (Since this is a steady state equilibrium condition, you will probably say, "...will require..." rather than, "...causes...".)
- 2) (20 points) Draw the Solow Growth Model diagram. Illustrate the effects of an increase in the growth rate of the population. Explain why the curve(s) moved as drawn. What happens to the equilibrium level of y^* and k^* ?
- 3) (20 points) Draw the Solow Growth Model diagram. Illustrate the effects of a decrease in the saving rate. Explain why the curve(s) moved as drawn. What happens to the equilibrium level of y^* and k^* ?
- 4) (20 points) Draw the Solow Growth Model diagram. Assume that the country is to the left of k^* . Which way will the economy move? Explain why it will move that direction.
- 5) (25 points) Why is it unlikely that k^* is the same as k_G ? Use the diagram to explain your logic. Also, explain which one you think is bigger, k^* or k_G and why.