

Do not write your name on the assignment. Write your name only on the back of this sheet of paper and staple your answers on the front of this sheet of paper. Your assignment will be typed, except graphs can be drawn by hand and mathematical equations can be done by hand. Failure to follow these directions will cost you 1 point on the assignment.

- 1) (15 points) Why do you think that the percentage of people living in rural areas declines as income per capita increases? (Figure 1-2 on page 12 shows that.)
- 2) (15 points each) There are several problems with using real GDP per capita as a measure of how well off a country is. Explain three of them.
- 3) (20 points) Explain why growth of real GDP per capita requires an increase in savings. Illustrate your answer on the graph of  $y$  vs.  $k$ . (Note that small variables in this book are ratios. For example,  $y$  is  $Y/N$  and  $n$  is  $\Delta N/N$ .)
- 4) (20 points) Use the Solow model's graph to explain the effect of an increase in the growth rate of population on the long-run output per worker. Explain the economic reason for this effect.