

All parts of the assignment will be turned in at the end of the lab. 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) Suppose a friend promises to pay you \$110 in a year and \$121 in two years. If you want a 10% return, then what is the most you would be willing to pay him? Briefly explain how you set up the equation and do the calculation.

2) (20 points) Suppose you pay \$1020 for a bond. You get paid 10% per year for three years. Then you get the principal of \$1000 repaid at the end of the third year. Set up the equation which could be used to find the rate of return you are earning. Briefly explain how you knew where to put each number. Without doing the calculations, would your return be 10%, <10%, or >10%? Explain your logic.

3) (15 points) Explain why saving is important for economic growth. Why is that hard for a developing country to do?

4) (10 points) Suppose a country grows at 4%. Its capital grew at 3% and its labor grew at 4%. How much did total factor productivity grow? Show all work.

5) (20 points each) Answer each part in separate paragraphs. For each of the following, explain what the phrase means and how it helps the economy to grow faster. Briefly explain what the government can do to help the economy grow faster.

A) Effective governance and institutions.

B) Investment in health.