

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) (15 points) To retire and keep your standard of living, you need to save 20 times your annual income. Suppose your retirement fund earns 6% interest and if you earn \$50,000/year. If you save for 40 years, you need to save \$502.14/month. If you save for 30 years, you need to save \$1070.05/month. There are two reasons why the extra 10 years greatly reduces how much you have to save. What are the two reasons? Explain your logic. (Note that this means you should start saving for retirement today.)
- 2) (10 points) Explain how enforcing property rights helps a country to grow faster.
- 3) (15 points) Having a patent last longer has both a good effect on the economy and a bad effect on the economy. Explain both effects.
- 4) (25 points) Draw the Keynesian Cross diagram, a.k.a. 45° diagram. Illustrate the effects of an increase in government spending. Explain why the curve(s) moved as drawn. Given the diagram, how much do you estimate the size of the government spending multiplier to be? Explain your logic.
- 5) (20 points) Draw the Keynesian Cross diagram, a.k.a. 45° diagram. Illustrate the effects of a decrease in marginal propensity to consume. Explain why the curve(s) moved as drawn.
- 6) (15 points) When we estimated the size of the government spending multiplier, we implicitly made some assumptions. What did we implicitly assume about taxes? If we relaxed that assumption, what would happen to the size of the multiplier? Explain your logic.