

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) (15 points each) Answer each part in separate paragraphs. For each of the following, explain how faster economic growth causes it.

- A) Breakdown of the family
- B) Urban congestion
- C) Reduction in illiteracy
- D) Political stability

3) (10 points) Most credit cards charge around 24% interest. At that rate, assuming no late fees, no payments, no new charges, and no penalties for missing the minimum payment, approximately how long will it take for your balance to double? Show all work and state what you did. Currently, the typical interest rate on your savings account is 0.5%. At that rate, assuming no deposits or withdrawals, how long will it take for your balance to double. Show all work and state what you did.

4) (15 points) The treaty which Trump has proposed called USMCA, would increase the length of time patents last for some items. How will that affect economic growth for the economy? Explain your logic.