

Do NOT write your name anywhere. (Canvas will tell me who turned in the assignment.) All answers must be typed, except for mathematics and graphs. Take pictures of your written answers and use your own software or to create a single PDF size A4 or 8.5" x 11". At the top of my [webpage](#), I list several online sources which will convert pictures to pdfs, merge pdfs, and resize them. However, Apple phones may require using [CamScanner](#) before using the online sources. Failure to follow these directions will cost you 10 points.

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) Suppose your bank account pays 0.5% interest. Approximately, how long will it take to double? Suppose your credit card charges 24% interest. Approximately how long will it take to double assuming no payments, no charges, and no fees for non-existent payments? Show all work and briefly state what you did.

3) (15 points) As a general rule, greater GDP growth is good. However, one of the negative side effects of it is the breakdown of the family. Explain how greater GDP causes that.

4) (20 points) Your book lists four keys to development of the economy. One of them is to *establish property rights*. Define that and explain how that helps the country to grow.

5) (20 points) Draw the Keynesian Cross diagram a.k.a., the 45° diagram. Illustrate the effects of a decrease in the interest rate. Explain why the curve(s) moved as drawn. What happens to the equilibrium level of GDP?

6) (20 points) Draw the Keynesian Cross diagram a.k.a., the 45° diagram. Illustrate the effects of an increase in the MPS. Explain why the curve(s) moved as drawn. What happens to the equilibrium level of GDP?