

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. Turn in the Excel file via Moodle with your name on an otherwise blank sheet. 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) (20 points) Run the regression using the data in the Lab #1 of the Excel file [lab6.xlsx](#). Remember the proper way to use the time to predict the quantity. Would you be willing to rely on this information to estimate the quantity over time? Why or why not?
- 2) (30 points) Use the data in Lab #2 to forecast quantity as a function of time, price, and income. Check for multi-collinearity of the independent variables. Is it acceptable to leave all three variables in? Why or why not? **If it is not acceptable**, re-run the regression without one variable and tell me why you left that variable out. **If it is acceptable**, then tell me how much you would expect to sell to a person with an income of \$50,000 if you charged \$10/unit in 1960.
- 3) (25 points) Explain how an increase in government spending of \$100 could lead to an increase in GDP of many times that? If we assume that people consume 90% of each additional dollar they earn, then the total increase would be \$1,000. That makes several assumptions. What did we assume about interest rates? How would relaxing that assumption affect the size of the government spending multiplier? Why would it have that effect?
- 4) (25 points) Use the IS/LM/FE diagram to show the short-run and long-run effects of an increase in government spending. Explain why the curve(s) moved as drawn. What happens to GDP and interest rates in the short-run and long-run?