Wilf Csaplar Jr.   Economics 350   Homework #2   **Due Friday 1/25**

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. Turn in the Excel file via Canvas. Place your name on an otherwise blank page of the Excel file. 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) Suppose the economy is described by $C_t = 100 + .9((Y_t + Y_{t-1} + Y_{t-2})/3 - T_t)$, $T_t = .4Y_t$, $I_t = 0.4(Y_t - Y_{t-1})$, $G = 500$, $NX_t = 300 - .14Y_t$. Use these equations to answer this question.
A) (25 points) Use the system of equations to solve for Y as a function of exogenous variable(s) and parameters.
B) (20 points) Put the equations into an Excel spreadsheet. Use it to find the GDP for the next 30 years if the past two year's GDP were $1000 each. Have Excel plot the GDP over that period. Is that monotonic convergence, monotonic divergence, oscillating convergence, oscillating divergence, or something else? Explain your logic.

2) (10 points each) For each of these events, determine the probability that the event means we will be going into a recession or a boom as appropriate. Briefly state how you reached that conclusion.
A) M1 dropped in November of 2018.
B) Pretend that initial claims for unemployment benefits increases 8% this month.
C) Suppose the economy was in a recession and stock prices go up for 3 months.
D) Suppose the economy was in a recession and average workweek in manufacturing increased 0.8% in a month.

3) (15 points) Suppose that 70% of the leading indicators say the economy will be going up and 80% of the lagging indicators say the economy will be going down. Where do you think the economy is on the business cycle? Explain your logic.