Wilf Csaplar Jr. Economics 302 Homework #8 **Due Thursday 10/30**

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) (10 points) Explain the equation $\pi = \frac{\Delta M}{M} - \eta_Y \frac{\Delta Y}{Y}$. You can treat a fraction as a variable after you define it.

2) (15 points) Why does it matter if the velocity of money is constant? Why should it be constant much of the time? Explain your logic. What might it depend upon? Explain why that variable could affect it.

3) (15 points) Go to https://fred.stlouisfed.org/series/GDPC1 and you will probably want to click on 10Y to see what I am talking about better. If you look carefully, a recession was declared in 2020 and that recession lasted less than the minimum 2 quarters. (Your textbook says the recession lasted from February to April.) Why was that declared a recession? If you look at the first two quarters of 2022, GDP fell in the first quarter and was virtually unchanged in the second quarter. It did slightly go up, but the preliminary estimate of GDP had it slightly falling. It was never declared a recession. (Which is good since the revision showed it was not a recession.) Suppose the preliminary estimate had been correct. Do you have any guesses as to why they never originally declared a recession? Explain your logic.

4) (15 points) Some economists say that the data pointing to less severe recessions since World War II cannot be used to prove it. Why not? Explain their logic.

5) (15 points) I argue that economic theory says the recessions should be less severe starting withe World War II. What are three reasons for that? Explain how each stabilize the economy.

6) (10 points each) For each variable, determine if it is procyclical, counter-cyclical, or acyclical. Also determine if it is leading, lagging, or roughly coincident. Explain your logic for all parts. Answer parts A, B, and C in separate paragraphs.
A) Duration of unemployment
B) Consumption
C) Stock prices