

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 1 point. 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) Explain  $\pi = \frac{\Delta M}{M} - \eta_Y \frac{\Delta Y}{Y}$ . You can treat  $\Delta X/X$  as one variable after you define it.

Explain the two variables and  $\eta_Y$ .

2) (10 points each) Explain how each of these events affects the demand for real money,  $(M^d/P)$ .

A) GDP increases.

B) The interest rate on money ( $i^M$ ) increases.

C) Interest rates on bonds increases.

D) Wealth increases.

3) (25 points) The quantity theory of money ( $MV=PY$ ) is used to explain how money causes inflation. Explain their logic when they state that increasing the money supply will just cause inflation. What two key assumptions are they making? Why is it valid to make those assumptions? (If the assumption is valid only some of the time, tell me when it is valid then and not at other times.) Explain your logic.

4) (20 points) When I was in graduate school, one of my professors was worried that the velocity of money would be increasing in the future. Why would the velocity of money increase? What would happen to prices if GDP and the money supply continue to grow at the same rate? Explain your logic.