

ECONOMICS 7344 – MACROECONOMIC THEORY II, Spring 2008

Homework 3. Monday February 4, due Wednesday February 6.

1. (10% of Core, January 2008) Consider an IS/LM framework. The demand for money is

$$M^d = P * (0.5Y - 0.5i)$$

where  $Y$  is output and  $i = r + \pi$  where  $r$  is the real rate of interest and  $\pi$  is the rate of inflation. Set the price level equal to 1. Further assume that output demand is

$$Y = C + G + I$$

where  $C = 0.8Y$  and  $I = 0.1Y - 0.1r$ .

- a) Derive the IS-curve (you need to find the exact coefficients implied by the information you are given).
- b) If  $G = 1$ ,  $M = 4$ , and  $\pi = 0$  find  $Y$ .
- c) Derive the aggregate demand curve; i.e., a relation between  $Y$  and  $P$ . For this calculation assume that it is still the case that  $i = r$ . (Again, you need to find the exact function implied by the information given.)