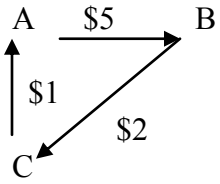
Economics 50
HW4

1. Given the reserve required ratio of 5%, the Fed purchases $250 in government securities from a dealer who deposits her check in Bank1. Assuming that banks are "loaned up" and that there is no cash leakage, we can say that:

a. Bank 1's total reserve will rise by ____$250_____.
b. Bank 1 will lend out _____$237.5____.
c. The money supply in the banking system as whole will _____rise_____ by ____$5000.
d. The total reserve of the baking system will ____rise_____ by _____$250_____.
e. The overall lending in the system will ___rise___ by _____$4750_____.

2. Consider the following exchanges between individuals A, B and C:



a. The amount of money, M, needed to consummate these transactions is ___$5_____.
b. The average price, P, in these exchanges is _____$8/3 = $2.67_____.
c. The average velocity of circulation of money, V, is ____ [($1)(3) + ($1) (2) + ($3) (1)]/5 = 8/5 = 1.6.

3. The demand for money, Md, is given by

Md = 220 - 10 i

where i is the rate of interest in percentage points.

The money supply, Ms, is set at

Ms= $120

a) The equilibrium rate of interest is ____10_____.

Md=Ms 220 - 10 i = 120 i=10

b) Assume that the required reserve ratio is 20%. The Fed decides to reduce the interest rate to 5%. The Fed must ____increase_____ the money supply by _____$50____. If the Fed decides to use open market operations to change the money supply, it will have to _____buy___ bonds. The multiplier is _____5___. Thus, to achieve an interest rate of 5%, the Fed will have to _____buy_____ bonds in the amount of ___$10___.

c) Suppose the interest rate is 5%, and marginal propensity to consume is 2/3 and the national income at equilibrium is $2750. The Fed decides after a while to reduce the equilibrium level of national income to $2000. The Fed must ____sell_____ government securities. This will cause the interest rate to ____rise_____ and the interest sensitive expenditures to _____fall_____ by___$250_____.