Chapter 6:

1. Questions For Review: 1,3,5. (p. 166)

2. Problems and Applications: 1a-d,2,4,10,11. (p. 167-168)[1]

Chapter 4:

3.

    a. Suppose that we pass a law setting the *required reserve ratio* at one. What is the value of the money multiplier? Explain.

    b. Suppose that the public desires to hold all of its money as currency and none as deposits. What is the value of the money multiplier? Explain.

    c. Suppose that $B = 100,000$, $cr = 1$, and $rr = 0.2$. What is the nominal money supply? Suppose that rr rises to 0.25. What happens to the money supply? Explain (briefly) the process by which this change in money supply happens.

Chapter 5:

4. Consider the Quantity Equation.

    a. Suppose that the Federal Reserve maintained nominal money supply growth at an average rate of 5% per year over time. If velocity was constant on average over time, and real GDP grew at an average rate of 2% per year over time, what would the average rate of inflation be over time? How would your answer differ if the Fed held the supply of money in the economy constant on average over time?

    b. In the early 1980s, the rate of growth of the velocity of M1 fell, while the rate of growth of M1 remained relatively constant. What must have happened to the rate of growth of nominal GDP?

5. How stable or volatile is velocity? Go to the FRED data site (linked on my course page) and plot the velocity of M2 (you can find this by searching for "velocity" or "M2" in the graphing search bar on the main page). Try also changing ("editing") the plot to show the growth rate (e.g., percentage change from year ago) of M2 velocity.

6. In the late 1970s, the inflation rate in the U.S. rose dramatically. Nominal interest rates also rose, but not by as much as the inflation rate, so ex post real interest rates fell. For example, consider the following data for the inflation rate (from the CPI) and the nominal interest rate on 3 year U.S. treasury bonds for the years 1978 and 1979.

	Inflation Rate (%)	Nominal Interest Rate (%)
1978	7.5	7.5
1979	11.5	10

We can see that while the nominal interest rate increased, the ex post real interest rate fell from 0% in 1978 to -1.5% in 1979.

Could these interest rate movements be consistent with the Fisher Effect?

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[1] Note that problem 11 references Chapter 5. You may wish to wait to do this one after the problems on Chapter 5 below.