1. Assume a small bank has $5 million in demand deposits and a 3% reserve requirement rule applies. If the bank currently has $170,000 in reserve, then what are:
   a) Its required reserves:

   b) Its excess reserves:

   c) If this bank were to lend out all of its excess reserves, what is the maximum amount by which the money supply would increase?

2. Suppose the Federal Reserve purchases $5000 in U.S. government securities from a bank. Assuming a 10% reserve requirement:
   a) What will happen to bank reserves?
   b) What is the immediate impact on excess reserves?
   c) What is the maximum possible impact on the M1 money supply?
   d) In the scenario in d), what is the ultimate change in required reserves held in the banking system.

3. Suppose you withdraw $500 in currency from your checking account to take with you on vacation to California.
   a) What effect will this action (by itself--- the instant you make the withdrawal) have on the M1 money supply?
   b) In the long run, will the above action have any impact on the M1 money supply? Explain.