Banks and Money Creation

Problem Set

1. Which of the following is considered to be money?
   A. Google stock
   B. Bonds
   C. Credit cards
   D. Checking account deposits
   E. Real estate

2. Buying the latest compact disc with a $20 bill means money is functioning as a:
   A. medium of exchange.
   B. store of value.
   C. unit of account.
   D. standard of deferred payment.
   E. form of near money.

3. If you transfer $1,000 from your savings account to your checking account:
   A. M1 decreases by $1,000, and M2 increases by $1,000.
   B. M1 increases by $1,000, and M2 decreases by $1,000.
   C. M1 and M2 don't change.
   D. M1 increases by $1,000, but M2 doesn't change.
   E. M2 decreases by $1,000, but M1 doesn't change.

4. The reserve ratio is the:
   A. bank's holdings of gold.
   B. government's holdings of gold at Fort Knox.
   C. fraction of deposits the banks hold in their vaults.
   D. ratio of gold to the paper money in the economy.
   E. fraction of deposits that are lent to borrowers.

Use the t-account below to answer question 5-6.

Assets	Liabilities
Reserves = $20,000 Loans = _______	Deposits = _________

5. If the reserve ratio is 25%, deposits are:
   A. $5,000.
   B. $15,000.
   C. $60,000.
   D. $80,000.
   E. $100,000.

6. If the reserve ratio is 25%, loans are:
   A. $5,000.
   B. $15,000.
   C. $60,000.
   D. $80,000.
   E. $20,000.

7. First National Bank has $80 million in checkable deposits, $15 million in deposits with the Federal Reserve, $5 million cash in the bank vault and $5 million in government bonds. Given this information the First National Bank has liabilities of:
   A. $105 million.
   B. $95 million.
   C. $85 million.
   D. $100 million.
   E. $80 million.

8. The existence of banks:
   A. results in the money supply being larger than the amount of currency in circulation.
   B. inhibits the creation of money.
   C. makes the money supply equal to the amount of currency in circulation.
   D. results in the money supply being less than the amount of currency in circulation.
   E. creates an economic system that is inferior to the barter economy.

9. Suppose the banking system does <u>NOT</u> hold excess reserves and the reserve ratio is 25%. If Melanie deposits $1,000 of cash into her checking account, the banking system can increase the money supply by:
   A. $5,000.
   B. $1,000.
   C. $3,000.
   D. $4.000.
   E. $1,250.

10. If a bank has deposits of $100,000, loans of $75,000, cash on hand of $10,000, and $15,000 on deposit at the Federal Reserve, then its reserve ratio is:
    A. 5%.
    B. 10%.
    C. 12.5%.
    D. 25%.
    E. 75%.

11. Suppose the reserve ratio is 20%. If Sam deposits $500 into his checking account, his bank can increase loans by:
    A. $500.
    B. $2,500.
    C. $100.
    D. $400.
    E. $300.

12. Suppose a bank already has excess reserves of $800 and the reserve ratio is 20%. If Andy deposits $1,000 of cash into his checking account and the bank lends $600 to Melanie, that bank can lend an additional:
    A. $200.
    B. $1,000.
    C. $800.
    D. $2,400.
    E. $400.

13. Suppose your grandma sends you $100 for your birthday and you deposit $100 into your checking account at the local bank. The reserve ratio is 10%. Based upon this deposit, the bank's excess reserves have increased by _____ and, if the bank lends all excess reserves, the money supply could eventually grow by as much as _____.
    A. $90; $1000
    B. $100; $900
    C. $90; $900
    D. $100; $1000
    E. $1000; $10,000

Use the information in the box below to answer questions 14-15.

The reserve requirement is 20%, and Leroy deposits his $1,000 check received as a graduation gift in his checking account. The bank does NOT want to hold excess reserves.

14. How much can the bank loan based on the $1,000 deposit?
    A. $1,000
    B. $200
    C. $800
    D. $0
    E. $900

15. What is the maximum expansion in the money supply possible?
    A. $1,000
    B. $1,800
    C. $4,000
    D. $5,000
    E. $10,000

16. The government of Eastlandia uses measures of monetary aggregates similar to those used by the United States, and the central bank of Eastlandia imposes a required reserve ratio of 10%. Use the information in the table to the right to answer the following questions:

Item	Amount
Bank deposits at the central bank	$200 million
Currency held by public	$150 million
Currency in bank vaults	$100 million
Checkable bank deposits	$500 million
Traveler's checks	$10 million

    a. What is M1?

    b. Are the commercial banks holding excess reserves?

17. Assume that $1,000 is deposited in the bank, and that each bank loans out all of its excess reserves. For each of the following required reserve ratios, calculate the amount that the bank must hold in required reserves, the amount that will be excess reserves, the deposit expansion multiplier and the maximum amount that the money supply could increase.

	Required Reserve Ratio				
	1%	5%	10%	15%	25%
Required reserves					
Excess reserves					
Money multiplier					
Maximum increase in M1					

18. Suppose that the T-account for First National Bank is as follows:

First National Bank T-Account

Assets		Liabilities	
Reserves	$100,000	Deposits	$500,000
Loans	$400,000		

a. If the Fed requires banks to hold 5 percent of deposits as reserves, how much in excess reserves does First National now hold?

b. Assume that all other banks hold only the required amount of reserves. If First national decides to reduce its reserves to only the required amount, by how much would the economy's money supply increase?

19. If the Federal Reserve wants to increase the money supply, should it raise or lower the reserve requirement? Why?