Macroeconomics Unit 4
Free Response Questions

<u>FRQ #1</u>- Assume that the economy of Mexico has a positive output gap and that the central bank takes actions to restore the economy to full-employment.

(a) What open-market operation should the central bank take?

(b) Draw a correctly labeled graph of the money market and show the effect of the policy identified in part (a) on the nominal interest rate.

(c) Based on the change in the interest rate in part (b), what will happen to each of the following in the short run?
  (i) Prices of previously issued bonds.
  (ii) The price level and real GDP. Explain.

(d) Now assume that households in Mexico increase their savings. Using a correctly labeled graph of the loanable funds market, show how the increase in savings will affect the real interest rate.

(e) Given the real interest rate change identified in part (d), what is the long-run effect on potential real gross domestic product in Mexico? Explain.

<u>FRQ #2</u>- The simplified balance sheet below is for Clifford Bank.

Assets		Liabilities	
Excess Reserves	$3000	Demand Deposits	$20,000
Required Reserves	$2000	Owner's equity	$10,000
Loans	$15,000		
Government Securities	$10,000		

(a) Calculate the required reserve ratio.

(b) Suppose that David deposits $10,000 in cash into his checking account.
  (i) What is the immediate effect of the cash deposit on the M1 measure of the money supply?
  (ii) Calculate the total excess reserves immediately after the deposit.
  (iii) Calculate the maximum change in the money supply over time from the additional excess reserves from David's deposit.

(c) Suppose that instead of David depositing $10,000, the central bank purchases $10,000 worth of bonds from Clifford Bank.
  (i) Will demand deposits increase, decrease, or stay the same immediately after the purchase?
  (ii) Calculate the change in excess reserves immediately after the purchase.
  (iii) Calculate the maximum amount that the money supply can change as a result of the $10,000 purchase of bonds by the Federal Reserve.

(d) Identify one reason why the actual change in money supply can be smaller than the maximum change you identified in part (c)(iii).