3. Assume that the reserve requirement is 20 percent and banks hold no excess reserves.

   (a) Assume that Kim deposits \$100 of cash from her pocket into her checking account. Calculate each of the following.

      (i) The maximum dollar amount the commercial bank can initially lend

      (ii) The maximum total change in demand deposits in the banking system

      (iii) The maximum change in the money supply

   (b) Assume that the Federal Reserve buys \$5 million in government bonds on the open market. As a result of the open market purchase, calculate the maximum increase in the money supply in the banking system.

   (c) Given the increase in the money supply in part (b), what happens to real wages in the short run? Explain.

**STOP**

**END OF EXAM**

## Question 3

**6 points** (3 + 1 + 2)

(a) 3 points:
- One point is earned for stating that the maximum dollar amount the bank can initially lend is $80.
- One point is earned for stating that the maximum change in demand deposits is $500.
- One point is earned for stating that the maximum change in the money supply is $400.

(b) 1 point:
- One point is earned for stating that the Federal Reserve's action will increase the money supply by at most $25 million.

(c) 2 points:
- One point is earned for stating that the real wages will fall.
- One point is earned for explaining that real wages fall because the Federal Reserve's action causes inflation.