Dalton Rothenberger    HW2

1    $\frac{M^d}{P} = 1000 + 0.2Y - 1000i$

$M^d = P(1000 + 0.2Y - 1000i) = 200(1000 + 0.2(2000) - 1000(0.1)$

$$\boxed{= 260,000}$$

2    4% to 5% = 1% rise in interest

$-0.25 \cdot 1 = \boxed{-0.25\% \text{ rise in money demand.}}$

3    Prices rise 2% and real income rises 5%

$\rightarrow$ From these money demand rises 6%

Prices are 1:1 with money demand so 2% of

the rise in demand is from price.

So 4% of rise from income: $X(5\%) = (4\%$

income elasticity $\longrightarrow$ $\boxed{X = \frac{4}{5} = 0.8}$

4    $V = \frac{\text{nominal GDP}}{\text{nominal money stock}} = \frac{7}{1} = \boxed{7}$

5    $RGDP = 6000$     $NGDP = \frac{6000}{200} = 30$

$6 = \frac{30}{M}$

$M = \frac{30}{6}$

$M = 5$

$\boxed{\text{Real Money demand} = (5)(200) = 1000}$

6    $RGDP = 6000$    $NGDP = \frac{6000}{20} = 300$      $\frac{50,000}{20} = 2500$

$3 = \frac{300}{M}$                                                             $\uparrow$
                                                                    amount added to
$M = \frac{300}{3} = 100$                                              NMS

Nominal Money Supply = 100

After increase = 2600

$3 = \frac{6000/P}{2600}$

$7800 = 6000/P$

$\boxed{P = 600}$

5% Increase in supply = 5% in demand
because of equilibrium

7.    $\frac{2}{3}(3) = 2$   so 2% of the
money demand increase comes from
income increase.
Then   5 - 2 = 3%   so 3% of
of increase comes from inflation rate
So   $\boxed{\text{inflation rate} = 3\%}$

8   a) $\rho = \frac{\partial M}{M} - h_y \cdot \frac{\partial y}{y}$
       $= 4 - \frac{2}{3}(6)$
       $\boxed{= 0\%}$

    b) $\rho = \frac{\partial M}{M} - h_y \frac{\partial y}{y}$
       $= 12 - \left(\frac{2}{3}\right)(6)$
       $\boxed{= 8\%}$

    c) $\rho = -2 - \left(\frac{2}{3}\right)(-3)$
       $= -2 + 2$
       $\boxed{= -2\%}$