1) Dalton Rothenberger

money multiplier → $\frac{M}{Base} = (cu+1)/(cu+res)$

Before: $cu = 0.3$ $res = 0.2$

$\frac{M}{Base} = (0.3+1)/(0.3+0.2)$

$= 2.6$

After: $cu = ?$ $res = 0.25$ $\frac{M}{Base} = 2.6$

$2.6 = (cu+1)/(cu+0.25)$

$2.6(cu+0.25) = (cu+1)$

$2.6\,cu + 0.65 = cu + 1$

$1.6(cu) = 0.35$

$cu = 0.21875$

2) $\frac{M}{Base} = (0.5+1)/(0.5+0.2)$

$= 2.143$

$M = (2.143)\cdot(1{,}000{,}000)$

M = $2,142,857.14 increase

3) M1 will increase by $300 million

4) B

5) $p = 0.04$, $y = 1$

$i = p + 0.02 + 0.5y + 0.5(p - 0.02)$

$= 0.04 + 0.02 + 0.5(0) + 0.5(0.04 - 0.02)$

$= 0.07$

7%

(cu+1)/(cu+res) = Money Multiplier

6a (0.4+1)/(0.4+0.07) = 2.98

b (0.4+1)/(0.4+0.08) = 2.92

c (0.45+1)/(0.45+0.07) = 2.79

7a M = 12 million CU = 2 million $\frac{RES}{DEP} = 0.2$

M = CU + DEP → DEP = M − CU

= 12 − 2

= $10 million

b) $\frac{RES}{DEP} = 0.2$ DEP = 10

RES = 0.2 DEP

= (0.2)(10)

= $2 million

c) Base = CU + RES

= 2 + 2

= $4 million

d) $cu = \frac{CU}{DEP} = \frac{2}{10} = 0.2$ $res = \frac{RES}{DEP} = 0.2$

money multiplier = (cu+1)/(cu+res)

= (0.2+1)/(0.2+0.2)

= 3

8 cu = 0 res = 0.1

money multiplier = (0+1)/(0+0.1)

= 10

M = 10 · Base

= 10 · 1000

= $10,000