D = 1,200

Currency = 1,000b

r=20%

R=0.2*1,200

L= 960

Calculate the amount of **new** money the Fed needs to inject in order to cause an 800b **increase** in the Money Supply.

$$\Delta D = \Delta R \times (1/r)$$
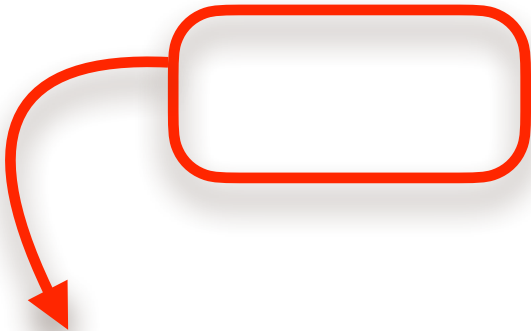
$$M^s = 1,000 + 1,200$$

$$M^s = 2,200$$

$$R = r \times D$$

$$L = D - R$$

Calculate: Required reserves, Loans and the Money Supply

R=240

L=1,200 - 240

The Fed needs to **inject** 160b in new money in order to cause an $800b **increase** in Deposits and in the Money Supply

$$800 = \Delta R \times (1/0.2)$$

$$\Delta M^s = \Delta \text{ Currency} + \Delta D$$

$$800b = \Delta \text{ Currency} + \Delta D$$

Assume: No change in currency

$$800b = \Delta D$$

$$800 = \Delta R \times (5)$$

$$800 / 5 = \Delta R$$

$$160b = \Delta R$$

The Fed needs to **purchase** 160b in **bonds** in order to cause an $800b **increase** in Deposits and in the Money Supply

Calculate: Required reserves, Loans and the Money Supply

Currency = 1,000b

r=20%

R= r x D
R=0.2*1,200
R=240

D = 1,200

L= D - R
L=1,200 - 240
L= 960

M^s = 1,000 + 1,200

M^s = 2,200

Calculate the amount of **new** money the Fed needs to inject in order to cause an 800b **increase** in the Money Supply.

$\Delta M^s = \Delta$ Currency $+\Delta D$

800b = Δ Currency $+\Delta D$

Assume: No change in currency

800b = ΔD

$\Delta D = \Delta R$ x (1/r)

800 = ΔR x (1/0.2)

800 = ΔR x (5)

800 / 5 = ΔR

160b= ΔR

The Fed needs to **purchase** 160b in **bonds** in order to cause an $800b **increase** in Deposits and in the Money Supply

Currency = 1,000b

r=20%

R= r x D | D = 1,200
R=0.2*1,200
R=240

L= D - R
L=1,200 - 240
L= 960

M^s = 1,000 + 1,200
M^s = 2,200