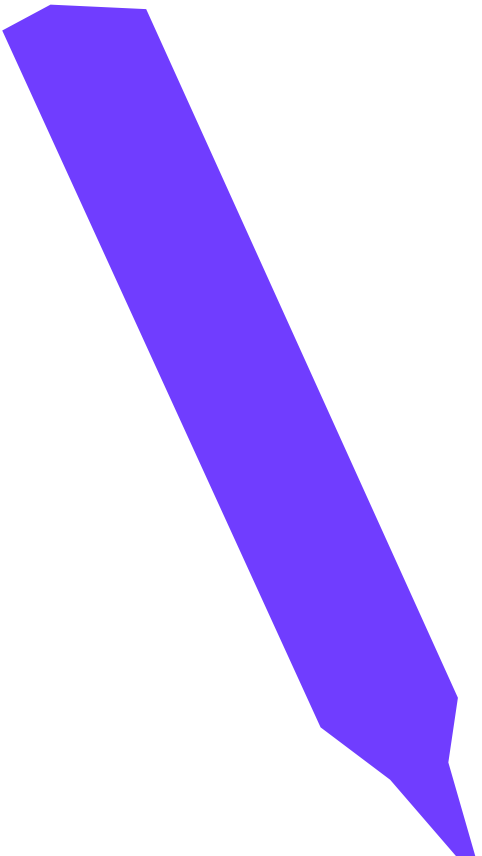
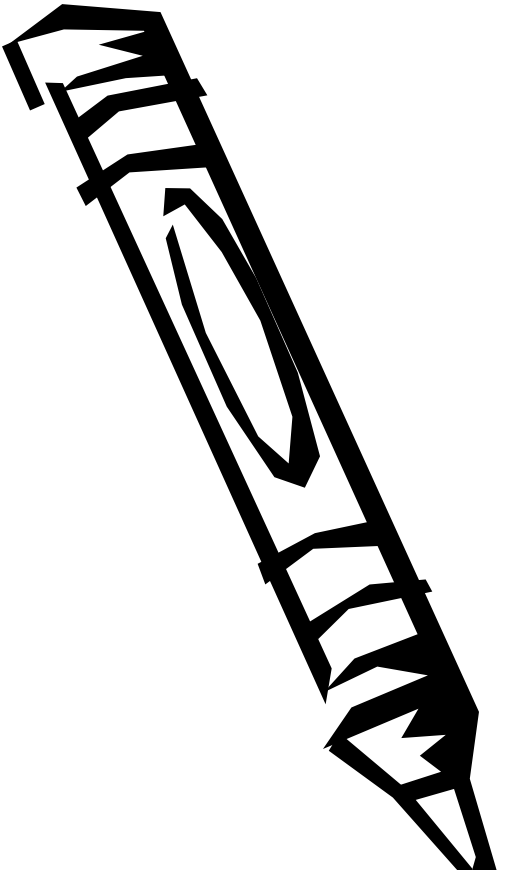




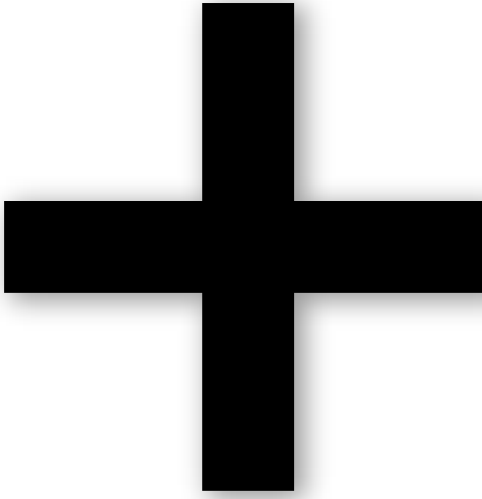
100

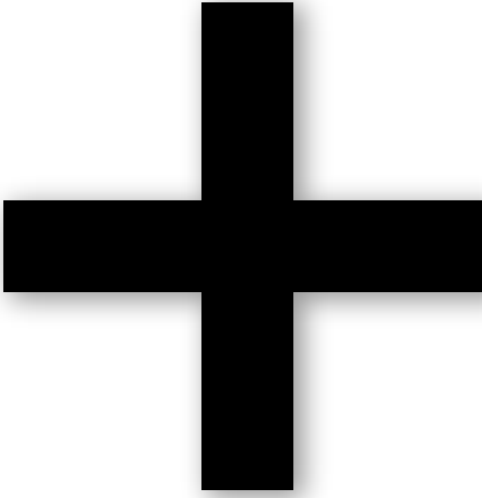
100 *0.9

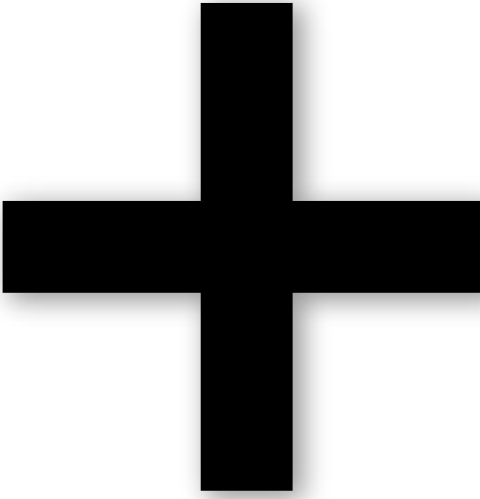
$$100*0.9*0.9*0.9$$

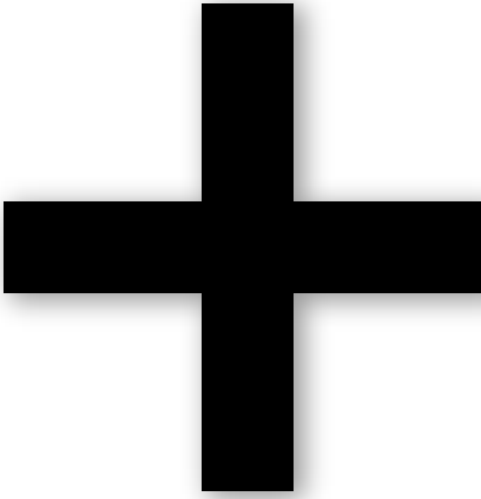
100*0.9*0.9

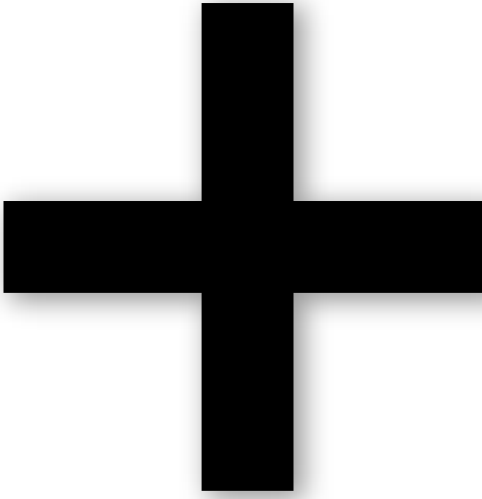
$$100*0.9*0.9*0.9*0.9$$

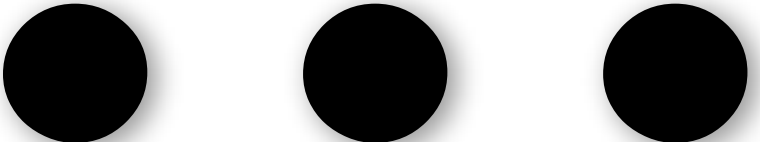




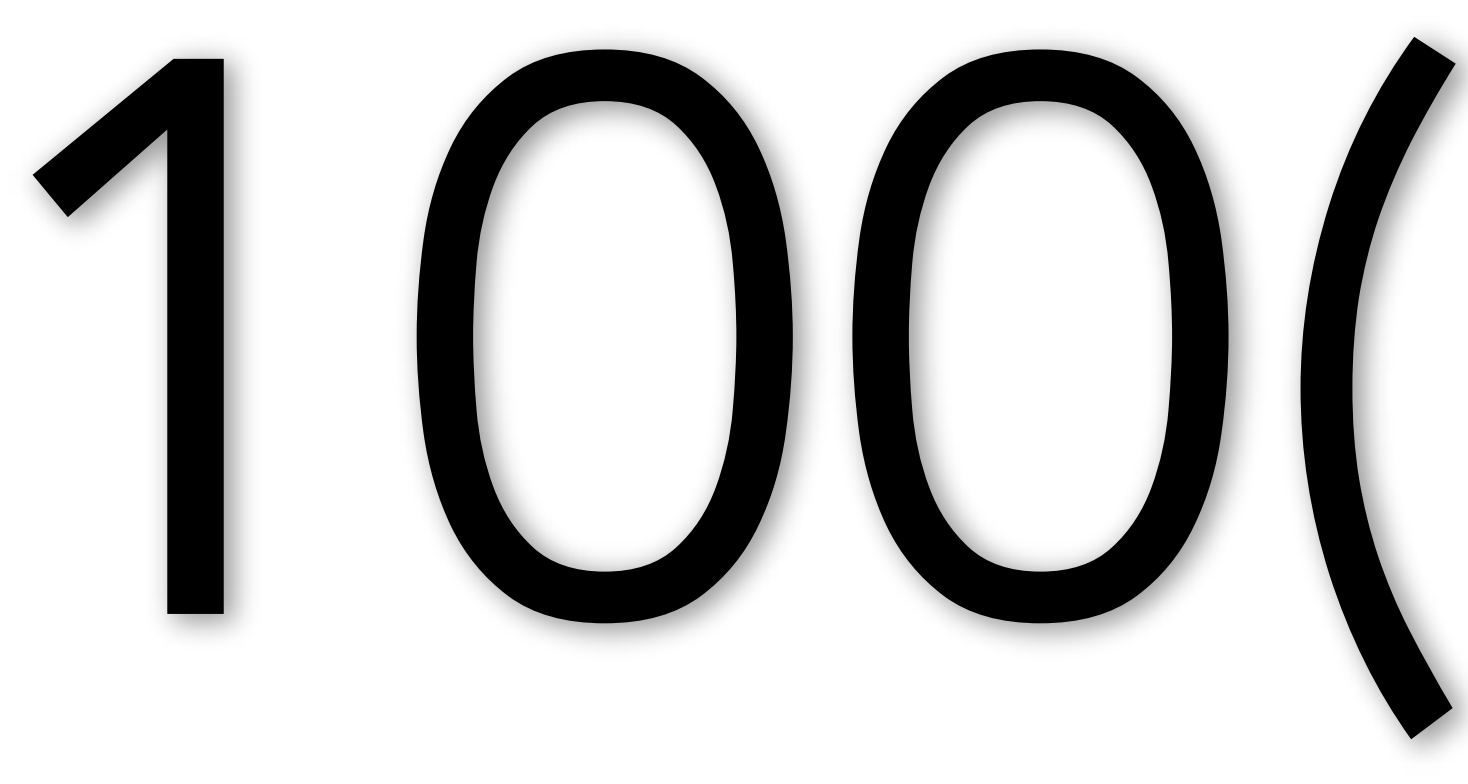


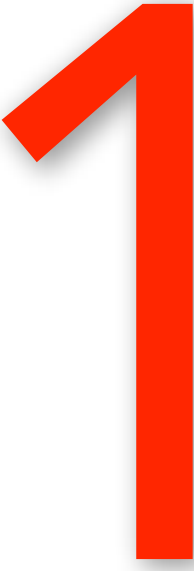


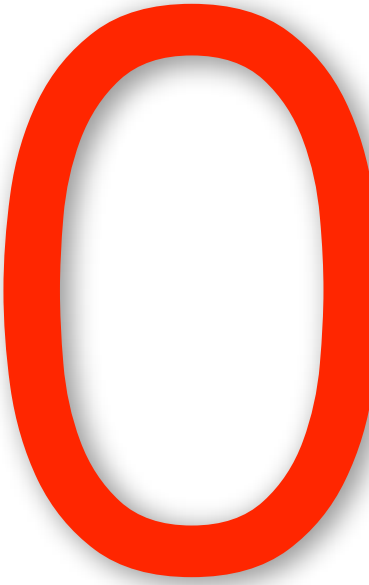




Factor out 100:

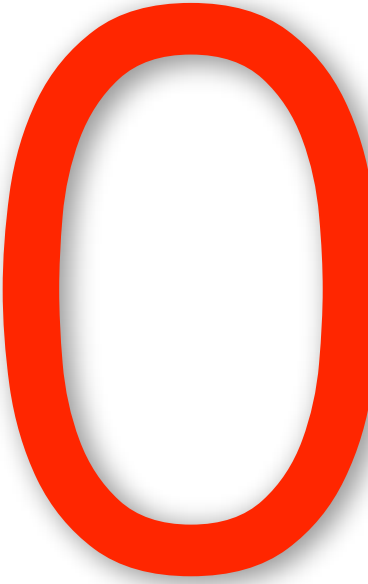

100(





0.9^2

0.9^3

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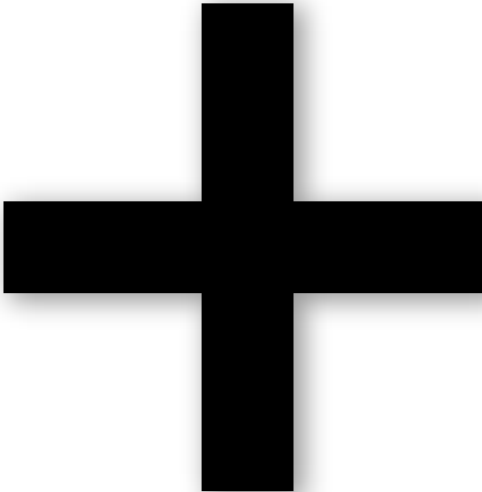

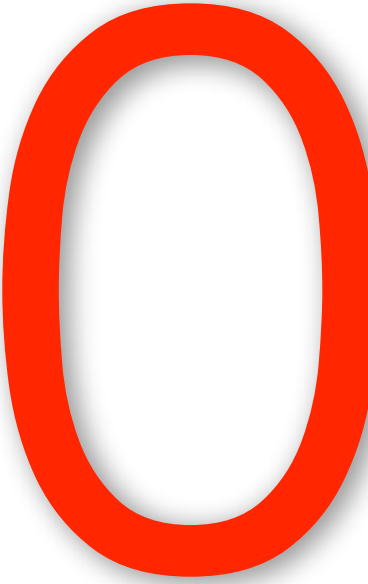


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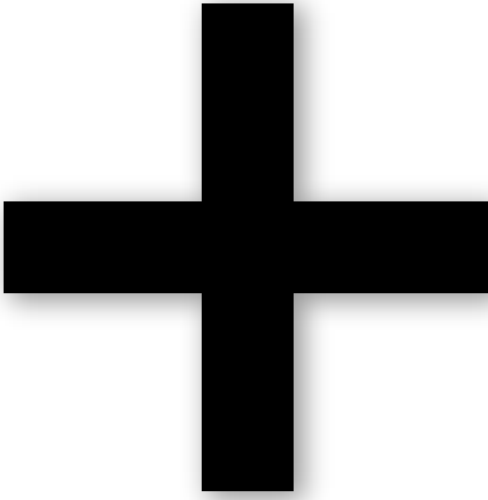
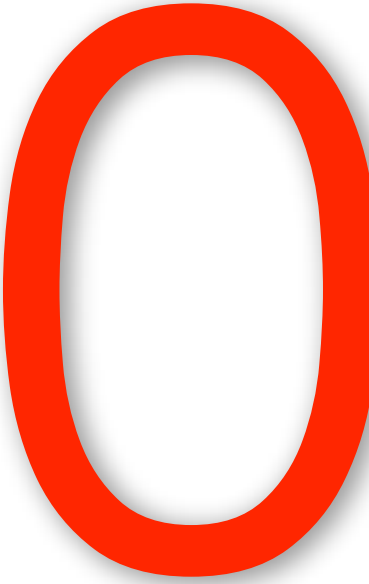
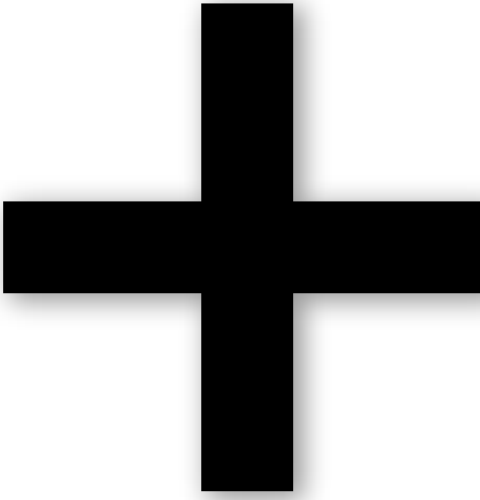
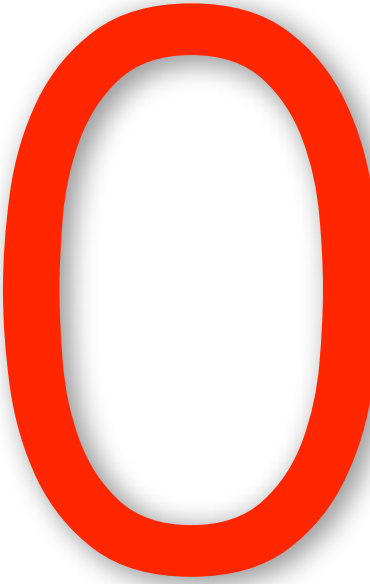
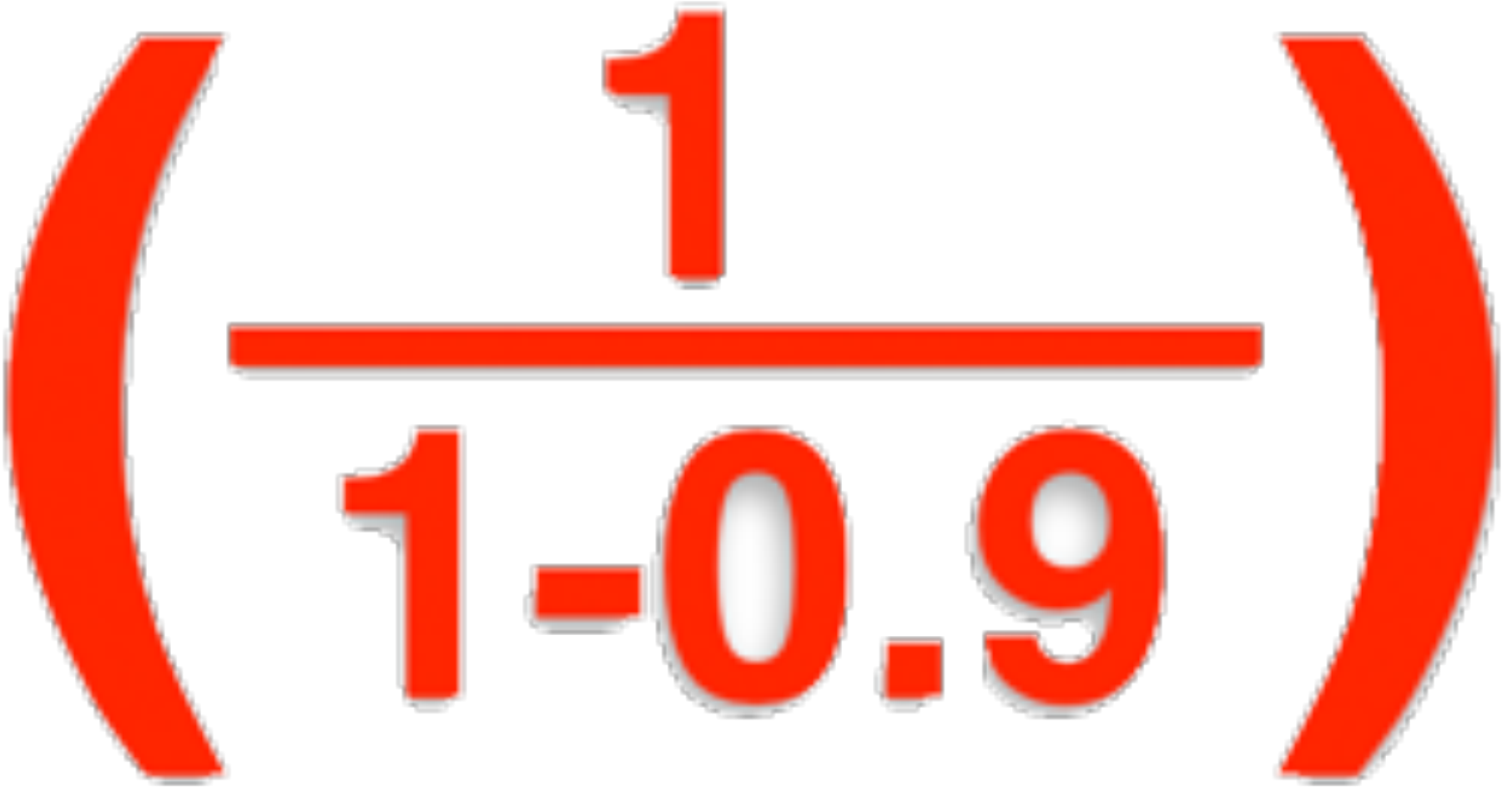









1
1-0.9


1
0.1

= 100

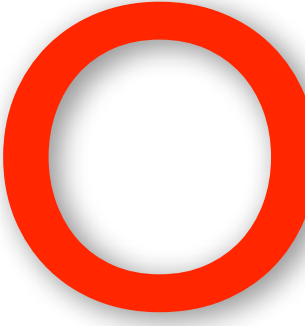
$$=100_{(10)}$$

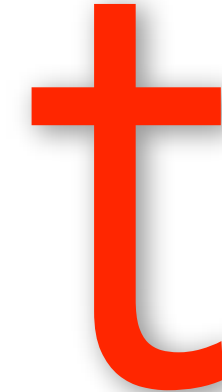
1,000

ΔSpending=

Government spends 100 and the multiplier process converts that 100 into a total of 1,000 in additional spending

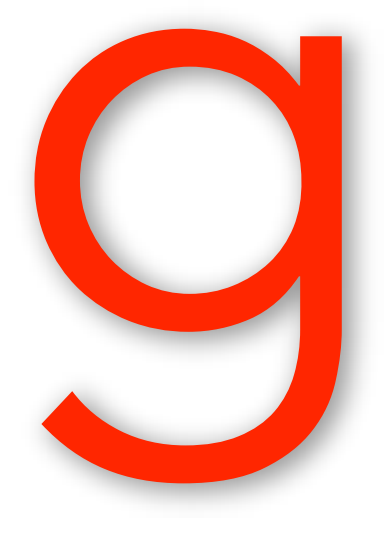
Total change in spending and output after all rounds of the multiplier process:

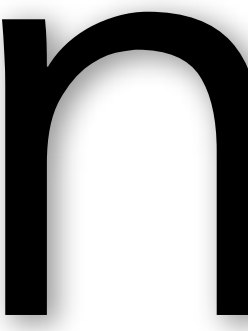


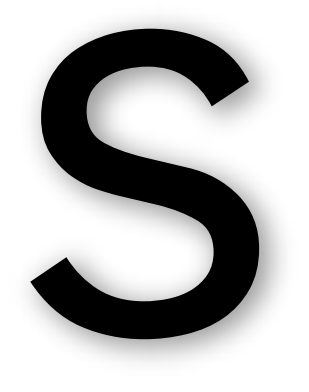


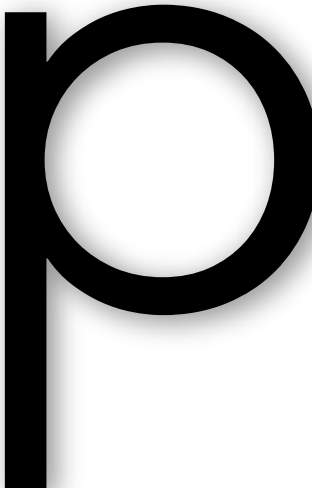

a

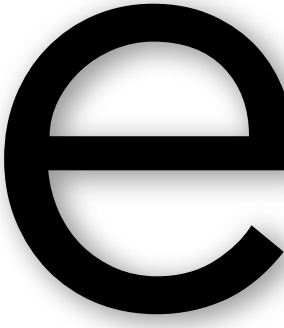

a

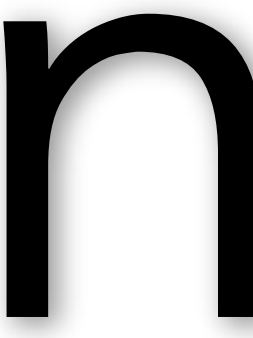


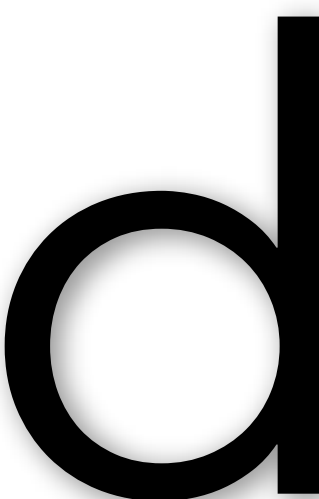


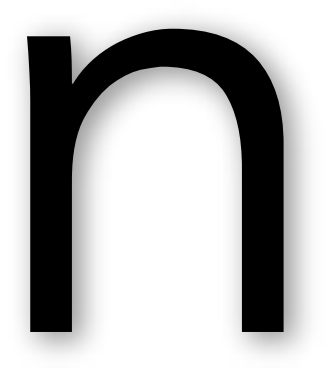


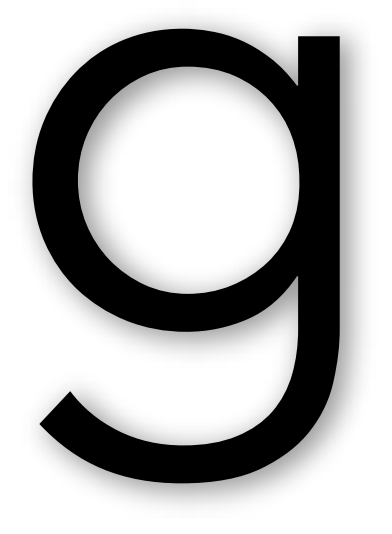


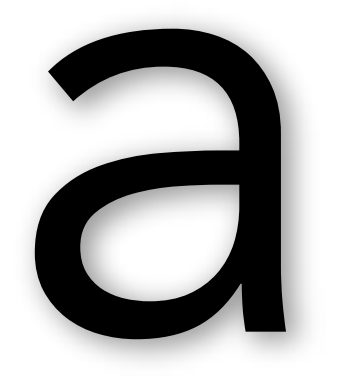


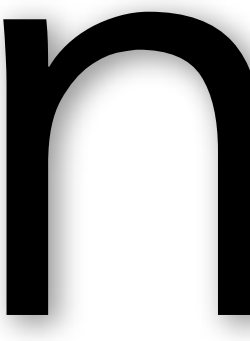


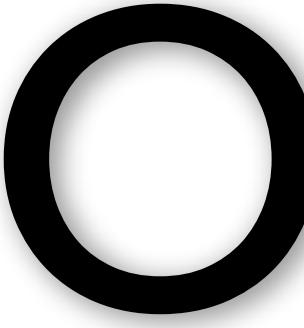


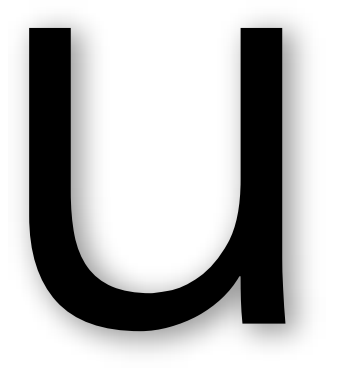


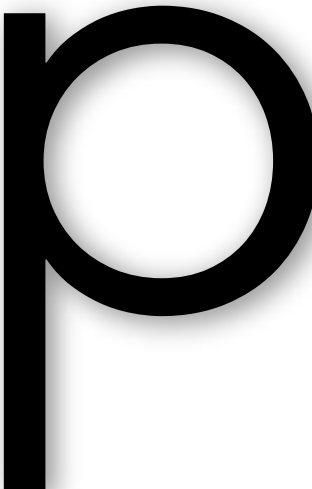


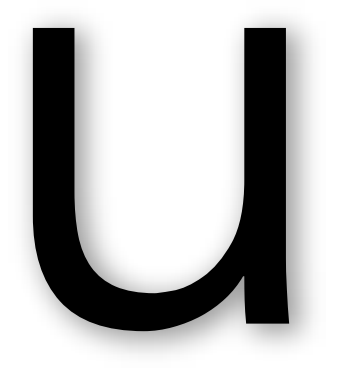


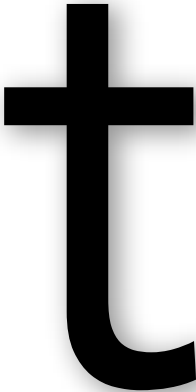


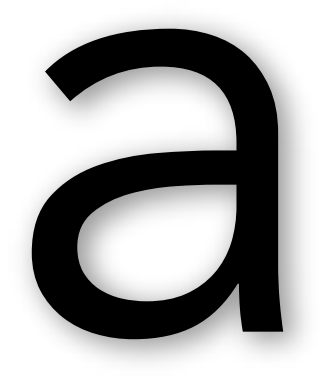








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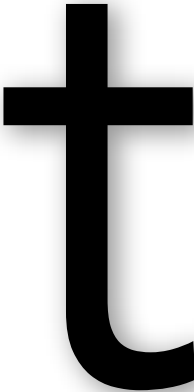

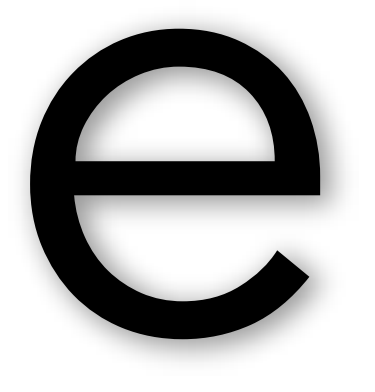

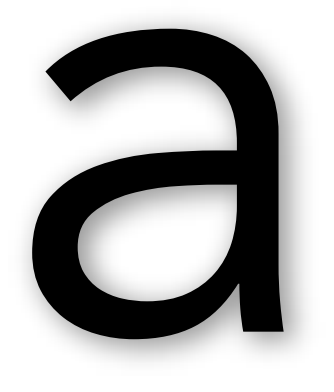
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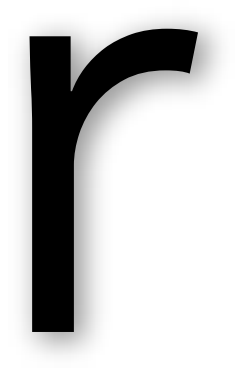

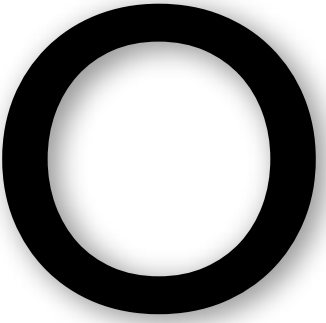

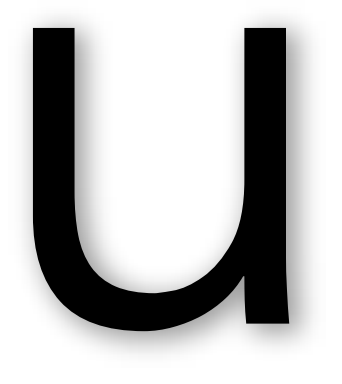

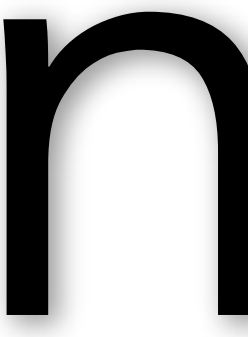

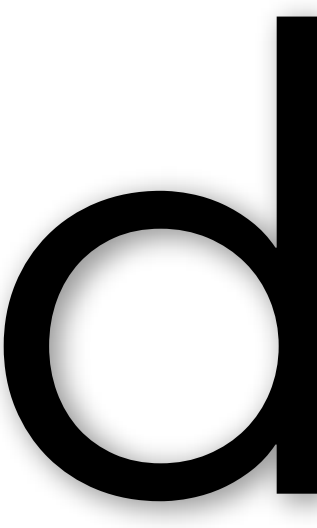

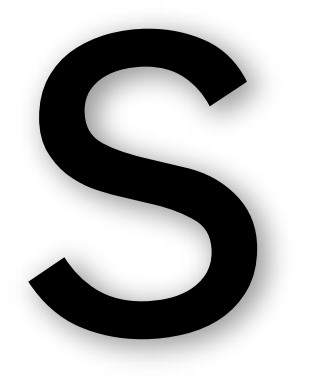

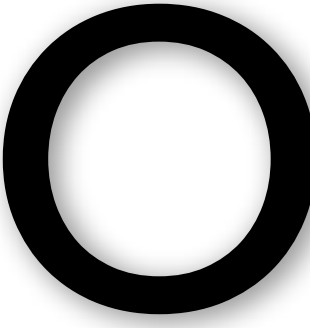

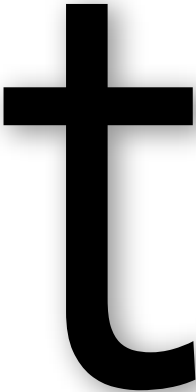

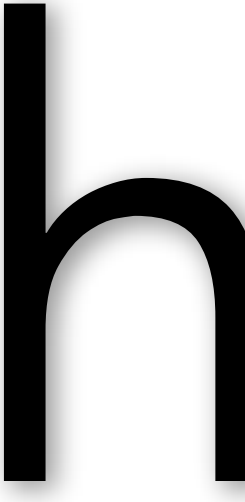

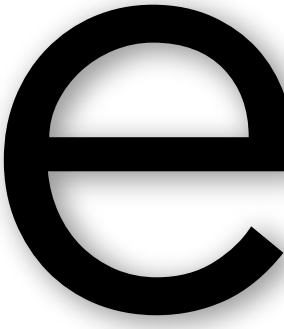

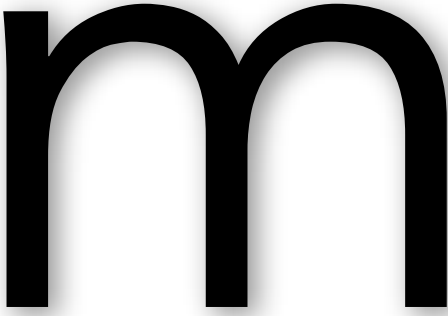

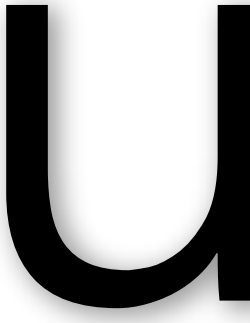

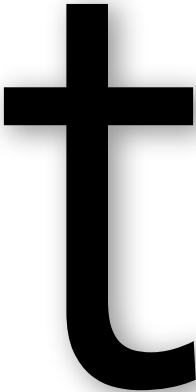

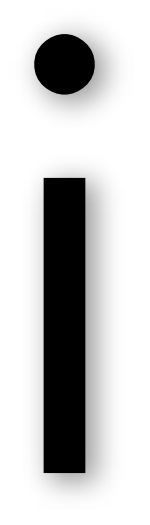

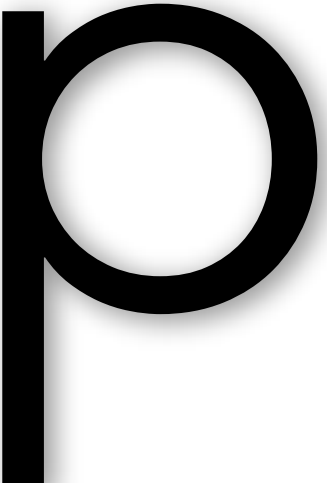

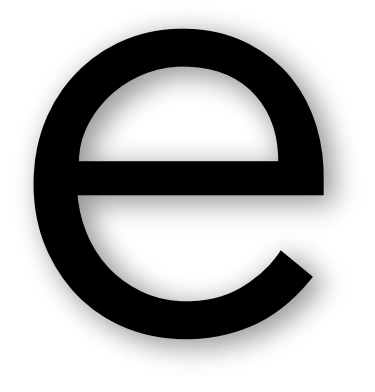

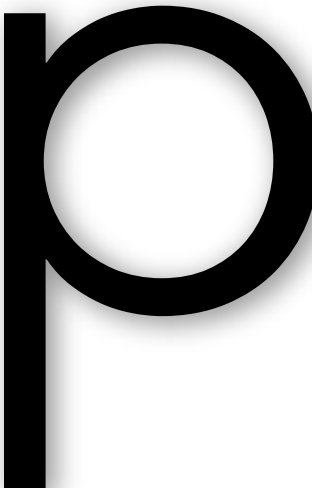

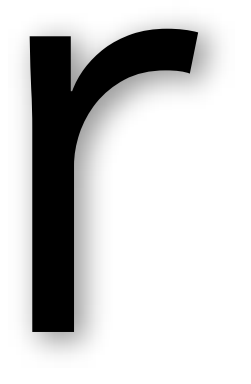

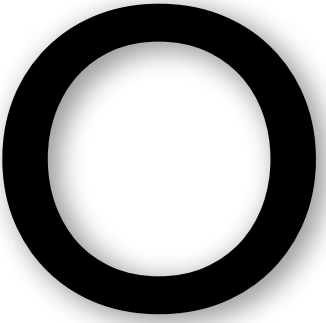

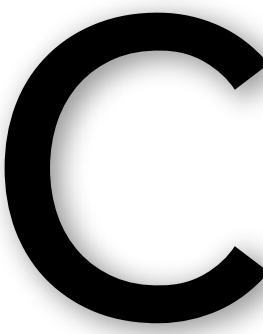

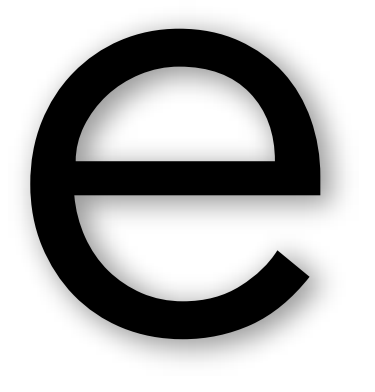

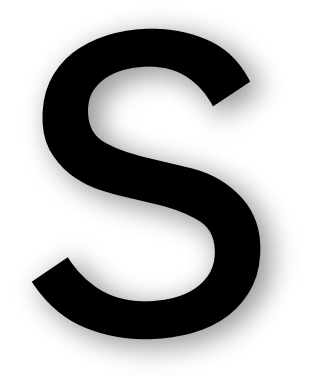

This infinite sum of terms equals:

0.9

0.9^4

0.95

0.9^6

0.9^{7}

Total change in spending and output after all rounds of the multiplier process:

Total change in spending and output after all rounds of the multiplier process:

$$100\left(\frac{1}{1-0.9}\right) = 100\left(\frac{1}{0.1}\right)$$

$$= 100\ (10)$$

$$\Delta \text{Spending} = 1{,}000$$

Government spends 100 and the multiplier process converts that 100 into a total of 1,000 in additional spending