



## Exponential Function Solution Equation - Growth (Discrete) Equation to Starting Value

### Value

1 Rearrange this equation to solve for the starting debt given this model of a growth in credit card debt with quarterly interest?

$$900 = D_0 \cdot (1 + 0.03)^{(4)}$$

A $D_0 = \frac{900}{(1 - 0.03)^4}$	B $D_0 = \frac{900}{(1 + 0.03)^4}$
------------------------------------	------------------------------------

2 Rearrange this equation to solve for the starting population given this model of a growth of an insect population that breeds once per year?

$$251 = P_0 \cdot (1 + 0.08)^{(3)}$$

A $P_0 = \frac{251}{(1 + 0.08)^3}$	B $P_0 = \frac{251}{(1 - 0.08)^3}$
------------------------------------	------------------------------------

3 Rearrange this equation to solve for the starting debt given this model of a growth in credit card debt with yearly interest?

$$684 = D_0 \cdot (1 + 0.04)^{(8)}$$

A $D_0 = \frac{684}{(1 - 0.04)^8}$	B $D_0 = 684 \cdot (1 + 0.04)^8$
C $D_0 = \frac{684}{(1 + 0.04)^8}$	

4 Rearrange this equation to solve for the starting population given this model of a growth of an insect population that breeds once per year?

$$1,125 = P_0 \cdot (1 + 0.05)^{(7)}$$

A $P_0 = \frac{1125}{(1 - 0.05)^7}$	B $P_0 = 1125 \cdot (1 + 0.05)^7$
C $P_0 = \frac{1125}{(1 + 0.05)^7}$	

5 Rearrange this equation to solve for the starting population given this model of a growth of a rabbit population (yearly breeding cycle)?

$$1,138 = P_0 \cdot (1 + 0.04)^{(6)}$$

A $P_0 = \frac{1138}{(1 - 0.04)^6}$	B $P_0 = 1138 \cdot (1 + 0.04)^6$
C $P_0 = \frac{1138}{(1 + 0.04)^6}$	

6 Rearrange this equation to solve for the starting population given this model of a growth of a rabbit population (yearly breeding cycle)?

$$1,129 = P_0 \cdot (1 + 0.09)^{(4)}$$

A $P_0 = \frac{1129}{(1 + 0.09)^4}$
B $P_0 = 1129 \cdot (1 + 0.09)^4$

7 Rearrange this equation to solve for the starting cash given this model of a monthly compounding growth of money in a savings account?

$$1,434 = P_0 \cdot (1 + 0.06)^{(8)}$$

A $P_0 = 1434 \cdot (1 + 0.06)^8$	B $P_0 = \frac{1434}{(1 - 0.06)^8}$
C $P_0 = \frac{1434}{(1 + 0.06)^8}$	

8 Rearrange this equation to solve for the starting population given this model of a growth of a rabbit population (yearly breeding cycle)?

$$647 = P_0 \cdot (1 + 0.09)^{(3)}$$

A $P_0 = \frac{647}{(1 + 0.09)^3}$	B $P_0 = \frac{647}{(1 - 0.09)^3}$
C $P_0 = 647 \cdot (1 + 0.09)^3$	