



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

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

$$477 = P_0 \cdot (1 + 0.03)^{(6)}$$

A $P_0 = 477 \cdot (1 + 0.03)^6$

B $P_0 = \frac{477}{(1 + 0.03)^6}$

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?

$$750 = P_0 \cdot (1 + 0.07)^{(6)}$$

A $P_0 = \frac{750}{(1 - 0.07)^6}$

B $P_0 = \frac{750}{(1 + 0.07)^6}$

C $P_0 = 750 \cdot (1 + 0.07)^6$

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

$$936 = P_0 \cdot (1 + 0.06)^{(5)}$$

A $P_0 = \frac{936}{(1 + 0.06)^5}$

B $P_0 = 936 \cdot (1 + 0.06)^5$

C $P_0 = \frac{936}{(1 - 0.06)^5}$

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?

$$478 = P_0 \cdot (1 + 0.02)^{(9)}$$

A $P_0 = \frac{478}{(1 - 0.02)^9}$

B $P_0 = 478 \cdot (1 + 0.02)^9$

C $P_0 = \frac{478}{(1 + 0.02)^9}$

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

$$838 = P_0 \cdot (1 + 0.09)^{(6)}$$

A $P_0 = \frac{838}{(1 + 0.09)^6}$

B $P_0 = \frac{838}{(1 - 0.09)^6}$

C $P_0 = 838 \cdot (1 + 0.09)^6$

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

$$514 = D_0 \cdot (1 + 0.08)^{(7)}$$

A $D_0 = \frac{514}{(1 - 0.08)^7}$

B $D_0 = 514 \cdot (1 + 0.08)^7$

C $D_0 = \frac{514}{(1 + 0.08)^7}$

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

$$284 = P_0 \cdot (1 + 0.04)^{(9)}$$

A $P_0 = \frac{284}{(1 + 0.04)^9}$

B $P_0 = \frac{284}{(1 - 0.04)^9}$

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

$$310 = D_0 \cdot (1 + 0.05)^{(9)}$$

A $D_0 = 310 \cdot (1 + 0.05)^9$

B $D_0 = \frac{310}{(1 - 0.05)^9}$

C $D_0 = \frac{310}{(1 + 0.05)^9}$