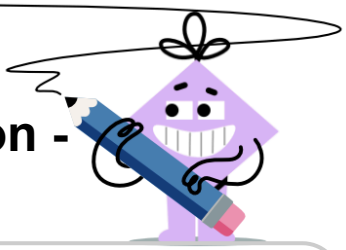
Name



Exponential Function Solution Equation - Growth (Discrete, Mis-matched Time Units) Equation to Starting Value

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

$$12,517 = D_0 \cdot (1 + 0.09)^{(\frac{48}{12})}$$

A $D_0 = \frac{12517}{(1 + 0.09)^{\frac{48}{12}}}$

B $D_0 = \frac{12517}{(1 - 0.09)^{\frac{48}{12}}}$

C $D_0 = 12517 \cdot (1 + 0.09)^{48 \cdot 12}$

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

$$449 = D_0 \cdot (1 + 0.06)^{(2 \cdot 4)}$$

A $$D_0 = \frac{449}{(1 + 0.06)^{2 \cdot 4}}$$

B $$D_0 = \frac{449}{(1 - 0.06)^{2 \cdot 4}}$$

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

$$1,012 = D_0 \cdot (1 + 0.04)^{(3 \cdot 4)}$$

A $D_0 = \frac{1012}{(1 - 0.04)^{3 \cdot 4}}$

B $D_0 = \frac{1012}{(1 + 0.04)^{3 \cdot 4}}$

C $D_0 = 1012 \cdot (1 + 0.04)^{\frac{3}{4}}$

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

$$844 = D_0 \cdot (1 + 0.05)^{(7 \cdot 4)}$$

A $D_0 = 844 \cdot (1 + 0.05)^{\frac{7}{4}}$

B $D_0 = \frac{844}{(1 + 0.05)^{7 \cdot 4}}$

C $D_0 = \frac{844}{(1 - 0.05)^{7 \cdot 4}}$

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

$$561 = D_0 \cdot (1 + 0.06)^{(2 \cdot 4)}$$

A $D_0 = 561 \cdot (1 + 0.06)^{\frac{2}{4}}$

B $D_0 = \frac{561}{(1 + 0.06)^{2 \cdot 4}}$

C $D_0 = \frac{561}{(1 - 0.06)^{2 \cdot 4}}$

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

$$1,136 = P_0 \cdot (1 + 0.06)^{(4 \cdot 3)}$$

A $$P_0 = \frac{1136}{(1 - 0.06)^{4 \cdot 3}}$$

B $$P_0 = \frac{1136}{(1 + 0.06)^{4 \cdot 3}}$$

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

$$1,799 = D_0 \cdot (1 + 0.04)^{(\frac{28}{4})}$$

A $D_0 = \frac{1799}{(1 + 0.04)^{\frac{28}{4}}}$

B $D_0 = 1799 \cdot (1 + 0.04)^{28 \cdot 4}$

C $D_0 = \frac{1799}{(1 - 0.04)^{\frac{28}{4}}}$

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

$$885 = P_0 \cdot (1 + 0.04)^{(6 \cdot 4)}$$

A $P_0 = 885 \cdot (1 + 0.04)^{\frac{6}{4}}$

B $P_0 = \frac{885}{(1 + 0.04)^{6 \cdot 4}}$

C $P_0 = \frac{885}{(1 - 0.04)^{6 \cdot 4}}$