Name

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

1 Rearrange this equation to solve for the starting views given this model of a continuous exponential growth of social media post views?

$$938 = V_0 \cdot e^{(0.07 \cdot 9 \cdot 12)}$$

A	$V_0 = \frac{938}{e^{(\frac{0.07}{9} \cdot 12)}}$	B	$V_0 = \frac{938}{e^{(0.07 \cdot 9 \cdot 12)}}$
C	$V_0 = \frac{e^{(0.07 \cdot 9 \cdot 12)}}{938}$		

2 Rearrange this equation to solve for the starting population given this model of a continuous growth of a rabbit population?

$$1,016 = P_0 \cdot e^{(0.04 \cdot 6 \cdot 4)}$$

A	$P_0 = \frac{1016}{e^{(\frac{0.04}{6} \cdot 4)}}$	B	$P_0 = \frac{e^{(0.04 \cdot 6 \cdot 4)}}{1016}$
C	$P_0 = \frac{1016}{e^{(0.04 \cdot 6 \cdot 4)}}$		

3 Rearrange this equation to solve for the starting price given this model of a continuously compounding growth of a share price?

$$697 = S_0 \cdot e^{(0.03 \cdot \frac{5}{4})}$$

A	$S_0 = \frac{e^{(0.03 \cdot \frac{5}{4})}}{697}$	B	$S_0 = \frac{697}{e^{(\frac{0.03}{5 \cdot 4})}}$
C	$S_0 = \frac{697}{e^{(0.03 \cdot \frac{5}{4})}}$		

4 Rearrange this equation to solve for the starting population given this model of a continuous growth of a rabbit population?

$$404 = P_0 \cdot e^{(0.06 \cdot 5 \cdot 4)}$$

A	$P_0 = \frac{404}{e^{(\frac{0.06}{5} \cdot 4)}}$	B	$P_0 = \frac{e^{(0.06 \cdot 5 \cdot 4)}}{404}$
C	$P_0 = \frac{404}{e^{(0.06 \cdot 5 \cdot 4)}}$		

5 Rearrange this equation to solve for the starting debt given this model of a growth of debt on a credit card with continuous compounding?

$$456 = D_0 \cdot e^{(0.06 \cdot \frac{7}{4})}$$

A	$D_0 = \frac{456}{e^{(\frac{0.06}{7 \cdot 4})}}$	B	$D_0 = \frac{456}{e^{(0.06 \cdot \frac{7}{4})}}$
C	$D_0 = \frac{e^{(0.06 \cdot \frac{7}{4})}}{456}$		

6 Rearrange this equation to solve for the starting downloads given this model of a continuously compounding growth of app downloads?

$$889 = A_0 \cdot e^{(0.08 \cdot \frac{3}{12})}$$

A	$A_0 = \frac{889}{e^{(0.08 \cdot \frac{3}{12})}}$	B	$A_0 = \frac{e^{(0.08 \cdot \frac{3}{12})}}{889}$
C	$A_0 = \frac{889}{e^{(\frac{0.08}{3 \cdot 12})}}$		

7 Rearrange this equation to solve for the starting population given this model of a continuous growth of an insect population?

$$563 = P_0 \cdot e^{(0.03 \cdot \frac{4}{365})}$$

A	$P_0 = \frac{563}{e^{(0.03 \cdot \frac{4}{365})}}$	B	$P_0 = \frac{563}{e^{(\frac{0.03}{4 \cdot 365})}}$
C	$P_0 = \frac{e^{(0.03 \cdot \frac{4}{365})}}{563}$		

8 Rearrange this equation to solve for the starting population given this model of a continuous growth of a rabbit population?

$$313 = P_0 \cdot e^{(0.09 \cdot \frac{5}{4})}$$

A	$P_0 = \frac{313}{e^{(\frac{0.09}{5 \cdot 4})}}$	B	$P_0 = \frac{e^{(0.09 \cdot \frac{5}{4})}}{313}$
C	$P_0 = \frac{313}{e^{(0.09 \cdot \frac{5}{4})}}$		