Name

Exponential Function Solution Equation - Growth (Continuous) Scenario to Starting Value

1

A social media post starts with a certain number of views. Its view count grows continually by 7% each month.After 6 months it has 1,217 views.

Rearrange the exponential equation to solve for for the starting views given this scenario?

A $V_0 = \frac{1217}{e^{(\frac{0.07}{6})}}$	B $V_0 = \frac{1217}{e^{(0.07 \cdot 6)}}$
C $V_0 = \frac{e^{(0.07 \cdot 6)}}{1217}$	

2

A bacteria population starts at a certain size. It grows continuously at 5% growth per week. After 3 weeks it has increased to a population of 697.

Rearrange the exponential equation to solve for for the starting population given this scenario?

A $P_0 = \frac{697}{e^{(\frac{0.05}{3})}}$	B $P_0 = \frac{697}{e^{(0.05 \cdot 3)}}$
C $P_0 = \frac{e^{(0.05 \cdot 3)}}{697}$	

3

A company's share price starts at a certain value. It grows continuously at 4% growth per quarter. After 8 quarters it has a share price of $1,239.

Rearrange the exponential equation to solve for for the starting price given this scenario?

A $S_0 = \frac{1239}{e^{(0.04 \cdot 8)}}$	B $S_0 = \frac{1239}{e^{(\frac{0.04}{8})}}$

4

A bacteria population starts at a certain size. It grows continuously at 9% growth per month. After 8 months it has increased to a population of 410.

Rearrange the exponential equation to solve for for the starting population given this scenario?

A $P_0 = \frac{410}{e^{(\frac{0.09}{8})}}$	B $P_0 = \frac{e^{(0.09 \cdot 8)}}{410}$
C $P_0 = \frac{410}{e^{(0.09 \cdot 8)}}$	

5

A savings account starts with a certain amount of cash. It grows continuously at 2% interest per quarter. After 9 quarters it has $718.

Rearrange the exponential equation to solve for for the starting cash given this scenario?

A $P_0 = \frac{718}{e^{(\frac{0.02}{9})}}$	B $P_0 = \frac{718}{e^{(0.02 \cdot 9)}}$
C $P_0 = \frac{e^{(0.02 \cdot 9)}}{718}$	

6

A savings account starts with a certain amount of cash. It grows continuously at 3% interest per month. After 6 months it has $1,077.

Rearrange the exponential equation to solve for for the starting cash given this scenario?

A $P_0 = \frac{1077}{e^{(\frac{0.03}{6})}}$	B $P_0 = \frac{e^{(0.03 \cdot 6)}}{1077}$
C $P_0 = \frac{1077}{e^{(0.03 \cdot 6)}}$	

7

An insect population starts at a certain size. It grows continuously at 2% growth per year. After 4 years it has increased to a population of 866.

Rearrange the exponential equation to solve for for the starting population given this scenario?

A $P_0 = \frac{e^{(0.02 \cdot 4)}}{866}$	B $P_0 = \frac{866}{e^{(\frac{0.02}{4})}}$
C $P_0 = \frac{866}{e^{(0.02 \cdot 4)}}$	

8

A credit card starts with a certain amount of debt. It grows continuously at 4% interest per month. After 6 months the debt has grown to $635.

Rearrange the exponential equation to solve for for the starting debt given this scenario?

A $D_0 = \frac{635}{e^{(0.04 \cdot 6)}}$	B $D_0 = \frac{e^{(0.04 \cdot 6)}}{635}$
C $D_0 = \frac{635}{e^{(\frac{0.04}{6})}}$	