1

An insect population starts at 800. It grows continuously at 9% growth per month. After a certain number of months it has increased to a population of 957.

Rearrange the exponential equation to solve for for the time given this scenario?

A	B
$t = \dfrac{\ln \frac{957}{800}}{0.09}$	$t = \dfrac{0.09}{\ln \frac{957}{800}}$

2

A bacteria population starts at 800. It grows continuously at 9% growth per year. After a certain number of years it has increased to a population of 1,146.

Rearrange the exponential equation to solve for for the time given this scenario?

A	B
$t = \dfrac{\ln \frac{1146}{800}}{0.09}$	$t = -\dfrac{\ln 1146 \cdot 800}{0.09}$
C	
$t = \dfrac{0.09}{\ln \frac{1146}{800}}$	

3

A social media post starts with 600 views. Its view count grows continually by 5% each day. After a certain number of days it has 732 views.

Rearrange the exponential equation to solve for for the time given this scenario?

A	B
$t = \dfrac{0.05}{\ln \frac{732}{600}}$	$t = -\dfrac{\ln 732 \cdot 600}{0.05}$
C	
$t = \dfrac{\ln \frac{732}{600}}{0.05}$	

4

A bacteria population starts at 700. It grows continuously at 8% growth per week. After a certain number of weeks it has increased to a population of 963.

Rearrange the exponential equation to solve for for the time given this scenario?

A	B
$t = \dfrac{\ln \frac{963}{700}}{0.08}$	$t = \dfrac{0.08}{\ln \frac{963}{700}}$

5

A company's share price starts at $300. It grows continuously at 6% growth per month. After a certain number of months it has a share price of $484.

Rearrange the exponential equation to solve for for the time given this scenario?

A	B
$t = \dfrac{\ln \frac{484}{300}}{0.06}$	$t = -\dfrac{\ln 484 \cdot 300}{0.06}$

6

A social media post starts with 900 views. Its view count grows continually by 7% each week. After a certain number of weeks it has 1,190 views.

Rearrange the exponential equation to solve for for the time given this scenario?

A	B
$t = \dfrac{0.07}{\ln \frac{1190}{900}}$	$t = -\dfrac{\ln 1190 \cdot 900}{0.07}$
C	
$t = \dfrac{\ln \frac{1190}{900}}{0.07}$	

7

An app starts with 400 downloads. Its download count grows continually by 8% each year. After a certain number of years it has 821 downloads.

Rearrange the exponential equation to solve for for the time given this scenario?

A	B
$t = \dfrac{0.08}{\ln \frac{821}{400}}$	$t = \dfrac{\ln \frac{821}{400}}{0.08}$

8

A bacteria population starts at 900. It grows continuously at 5% growth per day. After a certain number of days it has increased to a population of 994.

Rearrange the exponential equation to solve for for the time given this scenario?

A	B
$t = \dfrac{\ln \frac{994}{900}}{0.05}$	$t = \dfrac{0.05}{\ln \frac{994}{900}}$
C	
$t = -\dfrac{\ln 994 \cdot 900}{0.05}$	