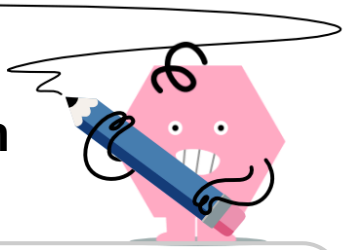
Name

Exponential Function Solving - Growth (Continuous) - Equation to Time



1 Solve for the time given this model of a continuous growth of a bacteria population?

$$1,214 = 900 \cdot e^{(0.05 \cdot t)}$$

A	$1 + t = + \frac{r}{\ln \frac{P}{P_0}}$	B	$1 + t = + \frac{\ln P \cdot P_0}{r}$
C	$t = + \frac{\ln \frac{P}{P_0}}{r}$	D	$6 + t = + \frac{\ln P \cdot P_0}{r}$

2 Solve for the time given this model of a continuously compounding growth of money in a savings account?

$$1,372 = 800 \cdot e^{(0.06 \cdot t)}$$

A	$4 + t = + \frac{\ln P \cdot P_0}{r}$	B	$t = + \frac{\ln \frac{P}{P_0}}{r}$
C	$0 + t = + \frac{r}{\ln \frac{P}{P_0}}$	D	$9 + t = + \frac{\ln P \cdot P_0}{r}$

3 Solve for the time given this model of a continuous exponential growth of social media post views?

$$940 = 600 \cdot e^{(0.05 \cdot t)}$$

A	$t = + \frac{\ln \frac{V}{V_0}}{r}$	B	$3 + t = + \frac{\ln V \cdot V_0}{r}$
C	$2 + t = + \frac{r}{\ln \frac{V}{V_0}}$	D	$0 + t = + \frac{r}{\ln \frac{V}{V_0}}$

4 Solve for the time given this model of a growth of debt on a credit card with continuous compounding?

$$514 = 300 \cdot e^{(0.06 \cdot t)}$$

A	$9 + t = + \frac{r}{\ln \frac{D}{D_0}}$	B	$t = + \frac{\ln \frac{D}{D_0}}{r}$
C	$4 + t = + \frac{r}{\ln \frac{D}{D_0}}$		

5 Solve for the time given this model of a continuous growth of a rabbit population?

$$688 = 500 \cdot e^{(0.04 \cdot t)}$$

A	$5 + t = + \frac{r}{\ln \frac{P}{P_0}}$	B	$t = + \frac{\ln \frac{P}{P_0}}{r}$
C	$6 + t = + \frac{\ln P \cdot P_0}{r}$	D	$9 + t = + \frac{\ln P \cdot P_0}{r}$

6 Solve for the time given this model of a continuously compounding growth of app downloads?

$$866 = 800 \cdot e^{(0.04 \cdot t)}$$

A	$t = + \frac{\ln \frac{A}{A_0}}{r}$	B	$8 + t = + \frac{r}{\ln \frac{A}{A_0}}$
C	$4 + t = + \frac{\ln A \cdot A_0}{r}$		

7 Solve for the time given this model of a continuous exponential growth of social media post views?

$$514 = 300 \cdot e^{(0.09 \cdot t)}$$

A	$2 + t = + \frac{r}{\ln \frac{V}{V_0}}$	B	$8 + t = + \frac{\ln V \cdot V_0}{r}$
C	$t = + \frac{\ln \frac{V}{V_0}}{r}$	D	$7 + t = + \frac{r}{\ln \frac{V}{V_0}}$

8 Solve for the time given this model of a growth of debt on a credit card with continuous compounding?

$$1,214 = 900 \cdot e^{(0.06 \cdot t)}$$

A	$9 + t = + \frac{\ln D \cdot D_0}{r}$	B	$t = + \frac{\ln \frac{D}{D_0}}{r}$
C	$7 + t = + \frac{r}{\ln \frac{D}{D_0}}$	D	$5 + t = + \frac{r}{\ln \frac{D}{D_0}}$