



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

1 Rearrange this equation to solve for the time given this model of a continuous growth of a bacteria population?

$$608 = 400 \cdot e^{(0.06 \cdot t)}$$

A $t = \frac{0.06}{\ln \frac{608}{400}}$

B $t = \frac{\ln \frac{608}{400}}{0.06}$

C $t = -\frac{\ln 608 \cdot 400}{0.06}$

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

$$1,099 = 900 \cdot e^{(0.04 \cdot t)}$$

A $t = \frac{\ln \frac{1099}{900}}{0.04}$

B $t = -\frac{\ln 1099 \cdot 900}{0.04}$

3 Rearrange this equation to solve for the time given this model of a continuous growth of a bacteria population?

$$563 = 300 \cdot e^{(0.07 \cdot t)}$$

A $t = -\frac{\ln 563 \cdot 300}{0.07}$

B $t = \frac{0.07}{\ln \frac{563}{300}}$

C $t = \frac{\ln \frac{563}{300}}{0.07}$

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

$$773 = 700 \cdot e^{(0.05 \cdot t)}$$

A $t = -\frac{\ln 773 \cdot 700}{0.05}$

B $t = \frac{0.05}{\ln \frac{773}{700}}$

C $t = \frac{\ln \frac{773}{700}}{0.05}$

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

$$793 = 600 \cdot e^{(0.04 \cdot t)}$$

A $t = -\frac{\ln 793 \cdot 600}{0.04}$

B $t = \frac{\ln \frac{793}{600}}{0.04}$

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

$$889 = 700 \cdot e^{(0.08 \cdot t)}$$

A $t = \frac{\ln \frac{889}{700}}{0.08}$

B $t = -\frac{\ln 889 \cdot 700}{0.08}$

7 Rearrange this equation to solve for the time given this model of a continuous growth of a bacteria population?

$$690 = 600 \cdot e^{(0.02 \cdot t)}$$

A $t = \frac{\ln \frac{690}{600}}{0.02}$

B $t = \frac{0.02}{\ln \frac{690}{600}}$

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

$$1,014 = 900 \cdot e^{(0.03 \cdot t)}$$

A $t = \frac{\ln \frac{1014}{900}}{0.03}$

B $t = -\frac{\ln 1014 \cdot 900}{0.03}$