mobius

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

1 Rearrange this equation to solve for the rate given this model of a continuously compounding growth of money in a savings account?

$$331 = 300 \cdot e^{(r \cdot 2)}$$

A $r = \dfrac{e^{\frac{331}{300}}}{2}$ B $r = \dfrac{\ln \frac{331}{300}}{2}$ C $r = \dfrac{\ln \frac{300}{331}}{2}$

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

$$1,016 = 800 \cdot e^{(r \cdot 4)}$$

A $r = \dfrac{\ln \frac{1016}{800}}{4}$ B $r = \dfrac{e^{\frac{1016}{800}}}{4}$

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

$$789 = 700 \cdot e^{(r \cdot 6)}$$

A $r = \dfrac{\ln \frac{789}{700}}{6}$ B $r = \dfrac{\ln \frac{700}{789}}{6}$ C $r = \dfrac{e^{\frac{789}{700}}}{6}$

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

$$661 = 500 \cdot e^{(r \cdot 4)}$$

A $r = \dfrac{e^{\frac{661}{500}}}{4}$ B $r = \dfrac{\ln \frac{661}{500}}{4}$ C $r = \dfrac{\ln \frac{500}{661}}{4}$

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

$$957 = 800 \cdot e^{(r \cdot 2)}$$

A $r = \dfrac{e^{\frac{957}{800}}}{2}$ B $r = \dfrac{\ln \frac{800}{957}}{2}$ C $r = \dfrac{\ln \frac{957}{800}}{2}$

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

$$718 = 600 \cdot e^{(r \cdot 9)}$$

A $r = \dfrac{e^{\frac{718}{600}}}{9}$ B $r = \dfrac{\ln \frac{718}{600}}{9}$ C $r = \dfrac{\ln \frac{600}{718}}{9}$

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

$$1,027 = 500 \cdot e^{(r \cdot 8)}$$

A $r = \dfrac{\ln \frac{1027}{500}}{8}$ B $r = \dfrac{e^{\frac{1027}{500}}}{8}$ C $r = \dfrac{\ln \frac{500}{1027}}{8}$

8 Rearrange this equation to solve for the rate given this model of a continuously compounding growth of money in a savings account?

$$808 = 500 \cdot e^{(r \cdot 8)}$$

A $r = \dfrac{\ln \frac{808}{500}}{8}$ B $r = \dfrac{e^{\frac{808}{500}}}{8}$