Name

Exponential Function Solving - Growth (Continuous) Equation to Rate

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

$$1,014 = 900 \cdot e^{(r \cdot 4)}$$

A $r = +\frac{\ln \frac{V_0}{V}}{t}$

B $r = +\frac{e^{\frac{V}{V_0}}}{t}$

C $r = +\frac{\ln \frac{V}{V_0}}{t}$

2 Solve for the rate given this model of a continuously compounding growth of a share price?

$$345 = 300 \cdot e^{(r \cdot 7)}$$

A $r = +\frac{\ln \frac{S_0}{S}}{t}$

B $r = +\frac{e^{\frac{S}{S_0}}}{t}$

C $r = +\frac{\ln \frac{S}{S_0}}{t}$

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

$$688 = 500 \cdot e^{(r \cdot 4)}$$

A $r = +\frac{\ln \frac{P_0}{P}}{t}$

B $r = +\frac{\ln \frac{P}{P_0}}{t}$

C $r = +\frac{e^{\frac{P}{P_0}}}{t}$

4 Solve for the rate given this model of a continuous growth of a rabbit population?

$$690 = 600 \cdot e^{(r \cdot 2)}$$

A $r = +\frac{\ln \frac{P_0}{P}}{t}$

B $r = +\frac{\ln \frac{P}{P_0}}{t}$

C $r = +\frac{e^{\frac{P}{P_0}}}{t}$

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

$$429 = 300 \cdot e^{(r \cdot 9)}$$

A $r = +\frac{e^{\frac{P}{P_0}}}{t}$

B $r = +\frac{\ln \frac{P_0}{P}}{t}$

C $r = +\frac{\ln \frac{P}{P_0}}{t}$

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

$$616 = 500 \cdot e^{(r \cdot 3)}$$

A $r = +\frac{e^{\frac{P}{P_0}}}{t}$

B $r = +\frac{\ln \frac{P_0}{P}}{t}$

C $r = +\frac{\ln \frac{P}{P_0}}{t}$

7 Solve for the rate given this model of a continuously compounding growth of app downloads?

$$493 = 400 \cdot e^{(r \cdot 3)}$$

A $r = +\frac{\ln \frac{A_0}{A}}{t}$

B $r = +\frac{\ln \frac{A}{A_0}}{t}$

8 Solve for the rate given this model of a continuous growth of a bacteria population?

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

A $r = +\frac{\ln \frac{P}{P_0}}{t}$

B $r = +\frac{\ln \frac{P_0}{P}}{t}$

C $r = +\frac{e^{\frac{P}{P_0}}}{t}$