Name

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

1 Rearrange this equation to solve for the rate given this model of a continuous decline of a whale population?

$$162 = 200 \cdot e^{(-r \cdot 7)}$$

A $r = -\frac{\ln \frac{162}{200}}{7}$

B $r = -\frac{e^{\frac{162}{200}}}{7}$

C $r = -\frac{\ln \frac{200}{162}}{7}$

2 Rearrange this equation to solve for the rate given this model of a continuous reduction of a toxin concentration?

$$471 = 600 \cdot e^{(-r \cdot 3)}$$

A $r = -\frac{\ln \frac{471}{600}}{3}$

B $r = -\frac{\ln \frac{600}{471}}{3}$

3 Rearrange this equation to solve for the rate given this model of a continuous decline of a whale population?

$$361 = 400 \cdot e^{(-r \cdot 5)}$$

A $r = -\frac{\ln \frac{400}{361}}{5}$

B $r = -\frac{\ln \frac{361}{400}}{5}$

C $r = -\frac{e^{\frac{361}{400}}}{5}$

4 Rearrange this equation to solve for the rate given this model of a continuous reduction of a toxin concentration?

$$680 = 900 \cdot e^{(-r \cdot 4)}$$

A $r = -\frac{\ln \frac{900}{680}}{4}$

B $r = -\frac{\ln \frac{680}{900}}{4}$

C $r = -\frac{e^{\frac{680}{900}}}{4}$

5 Rearrange this equation to solve for the rate given this model of a continuous decline of a bird population?

$$157 = 200 \cdot e^{(-r \cdot 8)}$$

A $r = -\frac{\ln \frac{200}{157}}{8}$

B $r = -\frac{e^{\frac{157}{200}}}{8}$

C $r = -\frac{\ln \frac{157}{200}}{8}$

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

$$334 = 400 \cdot e^{(-r \cdot 9)}$$

A $r = -\frac{\ln \frac{334}{400}}{9}$

B $r = -\frac{\ln \frac{400}{334}}{9}$

C $r = -\frac{e^{\frac{334}{400}}}{9}$

7 Rearrange this equation to solve for the rate given this model of a continuous reduction of a toxin concentration?

$$461 = 500 \cdot e^{(-r \cdot 2)}$$

A $r = -\frac{\ln \frac{500}{461}}{2}$

B $r = -\frac{e^{\frac{461}{500}}}{2}$

C $r = -\frac{\ln \frac{461}{500}}{2}$

8 Rearrange this equation to solve for the rate given this model of a continuous decline of a bird population?

$$707 = 900 \cdot e^{(-r \cdot 4)}$$

A $r = -\frac{\ln \frac{900}{707}}{4}$

B $r = -\frac{e^{\frac{707}{900}}}{4}$

C $r = -\frac{\ln \frac{707}{900}}{4}$