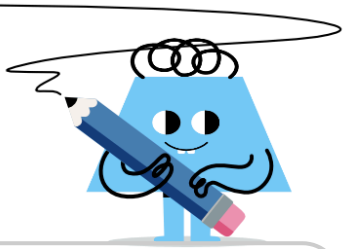
Name

Exponential Function Solving - Decay (Continuous) Equation to Rate



1 Solve for the rate given this model of a continuous decline of a whale population?

$$226 = 300 \cdot e^{(-r \cdot 7)}$$

A	$0 + r = -\frac{\ln \frac{P_0}{P}}{t}$	B	$1 + r = -\frac{\ln \frac{P_0}{P}}{t}$
C	$r = -\frac{\ln \frac{P}{P_0}}{t}$	D	$3 + r = -\frac{\ln \frac{P_0}{P}}{t}$

2 Solve for the rate given this model of a continuous reduction of a toxin concentration?

$$736 = 900 \cdot e^{(-r \cdot 4)}$$

A	$9 + r = -\frac{e^{\frac{C}{C_0}}}{t}$	B	$r = -\frac{\ln \frac{C}{C_0}}{t}$
C	$3 + r = -\frac{\ln \frac{C_0}{C}}{t}$	D	$8 + r = -\frac{e^{\frac{C}{C_0}}}{t}$

3 Solve for the rate of decay given this model of a continuous decay of a radioactive material?

$$584 = 700 \cdot e^{(-r \cdot 2)}$$

A	$r = -\frac{\ln \frac{R}{R_0}}{t}$	B	$8 + r = -\frac{e^{\frac{R}{R_0}}}{t}$
C	$0 + r = -\frac{e^{\frac{R}{R_0}}}{t}$	D	$1 + r = -\frac{e^{\frac{R}{R_0}}}{t}$

4 Solve for the rate given this model of a continuous decline of a bird population?

$$511 = 600 \cdot e^{(-r \cdot 8)}$$

A	$5 + r = -\frac{\ln \frac{P_0}{P}}{t}$	B	$r = -\frac{\ln \frac{P}{P_0}}{t}$

5 Solve for the rate given this model of a a continuously declining bacteria population?

$$610 = 800 \cdot e^{(-r \cdot 9)}$$

A	$6 + r = -\frac{\ln \frac{P_0}{P}}{t}$	B	$2 + r = -\frac{\ln \frac{P_0}{P}}{t}$
C	$r = -\frac{\ln \frac{P}{P_0}}{t}$	D	$7 + r = -\frac{e^{\frac{P}{P_0}}}{t}$

6 Solve for the rate given this model of a a continuously declining bacteria population?

$$201 = 300 \cdot e^{(-r \cdot 5)}$$

A	$1 + r = -\frac{e^{\frac{P}{P_0}}}{t}$	B	$9 + r = -\frac{e^{\frac{P}{P_0}}}{t}$
C	$6 + r = -\frac{\ln \frac{P_0}{P}}{t}$	D	$r = -\frac{\ln \frac{P}{P_0}}{t}$

7 Solve for the rate given this model of a continuous decline of a whale population?

$$167 = 200 \cdot e^{(-r \cdot 3)}$$

A	$4 + r = -\frac{\ln \frac{P_0}{P}}{t}$	B	$8 + r = -\frac{\ln \frac{P_0}{P}}{t}$
C	$r = -\frac{\ln \frac{P}{P_0}}{t}$	D	$5 + r = -\frac{e^{\frac{P}{P_0}}}{t}$

8 Solve for the rate given this model of a continuous reduction of a toxin concentration?

$$145 = 200 \cdot e^{(-r \cdot 8)}$$

A	$9 + r = -\frac{e^{\frac{C}{C_0}}}{t}$	B	$r = -\frac{\ln \frac{C}{C_0}}{t}$
C	$0 + r = -\frac{\ln \frac{C_0}{C}}{t}$	D	$1 + r = -\frac{\ln \frac{C_0}{C}}{t}$