



Exponential Function Solution Equation - Decay (Continuous) Equation to Starting Value

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

$$266 = C_0 \cdot e^{(-0.06 \cdot 2)}$$

A $C_0 = \frac{266}{e^{(-0.06 \cdot 2)}}$

B $C_0 = \frac{e^{(-0.06 \cdot 2)}}{266}$

C $C_0 = \frac{266}{e^{(\frac{-0.06}{2})}}$

2 Rearrange this equation to solve for the starting population given this model of a continuously declining bacteria population?

$$591 = P_0 \cdot e^{(-0.07 \cdot 6)}$$

A $P_0 = \frac{591}{e^{(\frac{-0.07}{6})}}$

B $P_0 = \frac{591}{e^{(-0.07 \cdot 6)}}$

C $P_0 = \frac{e^{(-0.07 \cdot 6)}}{591}$

3 Rearrange this equation to solve for the starting concentration given this model of a continuous decay of a radioactive material?

$$798 = R_0 \cdot e^{(-0.03 \cdot 4)}$$

A $R_0 = \frac{798}{e^{(-0.03 \cdot 4)}}$

B $R_0 = \frac{e^{(-0.03 \cdot 4)}}{798}$

C $R_0 = \frac{798}{e^{(\frac{-0.03}{4})}}$

4 Rearrange this equation to solve for the starting concentration given this model of a continuous decay of a radioactive material?

$$328 = R_0 \cdot e^{(-0.07 \cdot 6)}$$

A $R_0 = \frac{328}{e^{(\frac{-0.07}{6})}}$

B $R_0 = \frac{328}{e^{(-0.07 \cdot 6)}}$

C $R_0 = \frac{e^{(-0.07 \cdot 6)}}{328}$

5 Rearrange this equation to solve for the starting concentration given this model of a continuous decay of a radioactive material?

$$309 = R_0 \cdot e^{(-0.06 \cdot 8)}$$

A $R_0 = \frac{309}{e^{(\frac{-0.06}{8})}}$

B $R_0 = \frac{e^{(-0.06 \cdot 8)}}{309}$

C $R_0 = \frac{309}{e^{(-0.06 \cdot 8)}}$

6 Rearrange this equation to solve for the starting concentration given this model of a continuous decay of a radioactive material?

$$709 = R_0 \cdot e^{(-0.06 \cdot 2)}$$

A $R_0 = \frac{709}{e^{(-0.06 \cdot 2)}}$

B $R_0 = \frac{709}{e^{(\frac{-0.06}{2})}}$

C $R_0 = \frac{e^{(-0.06 \cdot 2)}}{709}$

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

$$521 = P_0 \cdot e^{(-0.07 \cdot 2)}$$

A $P_0 = \frac{e^{(-0.07 \cdot 2)}}{521}$

B $P_0 = \frac{521}{e^{(-0.07 \cdot 2)}}$

C $P_0 = \frac{521}{e^{(\frac{-0.07}{2})}}$

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

$$157 = P_0 \cdot e^{(-0.06 \cdot 4)}$$

A $P_0 = \frac{157}{e^{(-0.06 \cdot 4)}}$

B $P_0 = \frac{157}{e^{(\frac{-0.06}{4})}}$