



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

### Value

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

$$847 = P_0 \cdot e^{(-0.02 \cdot 3)}$$

A  $P_0 = \frac{847}{e^{(\frac{-0.02}{3})}}$

B  $P_0 = \frac{847}{e^{(-0.02 \cdot 3)}}$

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

$$247 = P_0 \cdot e^{(-0.06 \cdot 8)}$$

A  $P_0 = \frac{e^{(-0.06 \cdot 8)}}{247}$

B  $P_0 = \frac{247}{e^{(\frac{-0.06}{8})}}$

C  $P_0 = \frac{247}{e^{(-0.06 \cdot 8)}}$

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

$$558 = P_0 \cdot e^{(-0.04 \cdot 9)}$$

A  $P_0 = \frac{e^{(-0.04 \cdot 9)}}{558}$

B  $P_0 = \frac{558}{e^{(\frac{-0.04}{9})}}$

C  $P_0 = \frac{558}{e^{(-0.04 \cdot 9)}}$

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

$$407 = P_0 \cdot e^{(-0.06 \cdot 9)}$$

A  $P_0 = \frac{407}{e^{(\frac{-0.06}{9})}}$

B  $P_0 = \frac{407}{e^{(-0.06 \cdot 9)}}$

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

$$511 = P_0 \cdot e^{(-0.02 \cdot 8)}$$

A  $P_0 = \frac{511}{e^{(-0.02 \cdot 8)}}$

B  $P_0 = \frac{e^{(-0.02 \cdot 8)}}{511}$

C  $P_0 = \frac{511}{e^{(\frac{-0.02}{8})}}$

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

$$668 = P_0 \cdot e^{(-0.02 \cdot 9)}$$

A  $P_0 = \frac{668}{e^{(\frac{-0.02}{9})}}$

B  $P_0 = \frac{668}{e^{(-0.02 \cdot 9)}}$

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

$$243 = P_0 \cdot e^{(-0.09 \cdot 8)}$$

A  $P_0 = \frac{243}{e^{(-0.09 \cdot 8)}}$

B  $P_0 = \frac{243}{e^{(\frac{-0.09}{8})}}$

C  $P_0 = \frac{e^{(-0.09 \cdot 8)}}{243}$

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

$$532 = C_0 \cdot e^{(-0.04 \cdot 3)}$$

A  $C_0 = \frac{e^{(-0.04 \cdot 3)}}{532}$

B  $C_0 = \frac{532}{e^{(\frac{-0.04}{3})}}$

C  $C_0 = \frac{532}{e^{(-0.04 \cdot 3)}}$