



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

- 1 What is the value of the starting concentration given this model of a continuous decay of a radioactive material?

$$285 = R_0 \cdot e^{(-0.07 \cdot 8)}$$

- | | |
|---------------|---------------|
| A $R_0 = 500$ | B $R_0 = 600$ |
| C $R_0 = 200$ | D $R_0 = 300$ |

- 2 What is the value of the starting population given this model of a continuous decline of a whale population?

$$348 = P_0 \cdot e^{(-0.04 \cdot 9)}$$

- | | |
|---------------|---------------|
| A $P_0 = 200$ | B $P_0 = 500$ |
| C $P_0 = 600$ | D $P_0 = 700$ |

- 3 What is the value of the starting concentration given this model of a continuous reduction of a toxin concentration?

$$774 = C_0 \cdot e^{(-0.03 \cdot 5)}$$

- | | |
|---------------|----------------|
| A $C_0 = 700$ | B $C_0 = 1100$ |
| C $C_0 = 900$ | D $C_0 = 600$ |

- 4 What is the value of the starting population given this model of a continuous decline of a bird population?

$$334 = P_0 \cdot e^{(-0.06 \cdot 3)}$$

- | | |
|---------------|---------------|
| A $P_0 = 400$ | B $P_0 = 200$ |
| C $P_0 = 600$ | D $P_0 = 500$ |

- 5 What is the value of the starting concentration given this model of a continuous reduction of a toxin concentration?

$$723 = C_0 \cdot e^{(-0.02 \cdot 5)}$$

- | | |
|---------------|---------------|
| A $C_0 = 900$ | B $C_0 = 600$ |
| C $C_0 = 500$ | D $C_0 = 800$ |

- 6 What is the value of the starting concentration given this model of a continuous decay of a radioactive material?

$$361 = R_0 \cdot e^{(-0.02 \cdot 5)}$$

- | | |
|---------------|---------------|
| A $R_0 = 400$ | B $R_0 = 700$ |
| C $R_0 = 100$ | D $R_0 = 300$ |

- 7 What is the value of the starting population given this model of a continuous decline of a bird population?

$$260 = P_0 \cdot e^{(-0.07 \cdot 2)}$$

- | | |
|---------------|---------------|
| A $P_0 = 100$ | B $P_0 = 500$ |
| C $P_0 = 300$ | D $P_0 = 200$ |

- 8 What is the value of the starting concentration given this model of a continuous decay of a radioactive material?

$$798 = R_0 \cdot e^{(-0.06 \cdot 2)}$$

- | | |
|---------------|----------------|
| A $R_0 = 700$ | B $R_0 = 1000$ |
| C $R_0 = 800$ | D $R_0 = 900$ |