



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

1 Rearrange this equation to solve for the rate given this model of a decline of a bird population (yearly breeding cycle)?

$$129 = 200 \cdot (1 - r)^{(7)}$$

A	$r = -\left(\frac{129}{200}\right)^{\frac{7}{2}} - 1$	B	$r = -\left(\frac{129}{200}\right)^{\frac{1}{7}} - 1$
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2 Rearrange this equation to solve for the rate given this model of a decline of a toxin concentration (daily dialysis)?

$$149 = 200 \cdot (1 - r)^{(4)}$$

A	$r = -\left(\frac{149}{200}\right)^{\frac{4}{2}} - 1$	B	$r = +\left(\frac{149}{200}\right)^{\frac{1}{4}} + 1$
C	$r = -\left(\frac{149}{200}\right)^{\frac{1}{4}} - 1$		

3 Rearrange this equation to solve for the rate given this model of a decline of a bird population (yearly breeding cycle)?

$$691 = 800 \cdot (1 - r)^{(2)}$$

A	$r = +\left(\frac{691}{800}\right)^{\frac{1}{2}} + 1$	B	$r = -\left(\frac{691}{800}\right)^{\frac{2}{2}} - 1$
C	$r = -\left(\frac{691}{800}\right)^{\frac{1}{2}} - 1$		

4 Rearrange this equation to solve for the rate given this model of a decline of a bird population (yearly breeding cycle)?

$$111 = 200 \cdot (1 - r)^{(8)}$$

A	$r = -\left(\frac{111}{200}\right)^{\frac{1}{8}} - 1$	B	$r = +\left(\frac{111}{200}\right)^{\frac{1}{8}} + 1$
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5 Rearrange this equation to solve for the rate given this model of a decline of a bird population (yearly breeding cycle)?

$$121 = 200 \cdot (1 - r)^{(6)}$$

A	$r = +\left(\frac{121}{200}\right)^{\frac{1}{6}} + 1$	B	$r = -\left(\frac{121}{200}\right)^{\frac{6}{2}} - 1$
C	$r = -\left(\frac{121}{200}\right)^{\frac{1}{6}} - 1$		

6 Rearrange this equation to solve for the rate given this model of a decline of a whale population (yearly breeding cycle)?

$$312 = 600 \cdot (1 - r)^{(9)}$$

A	$r = -\left(\frac{312}{600}\right)^{\frac{1}{9}} - 1$	B	$r = -\left(\frac{312}{600}\right)^{\frac{9}{9}} - 1$
C	$r = +\left(\frac{312}{600}\right)^{\frac{1}{9}} + 1$		

7 Rearrange this equation to solve for the rate given this model of a decline of a toxin concentration (daily dialysis)?

$$141 = 300 \cdot (1 - r)^{(9)}$$

A	$r = -\left(\frac{141}{300}\right)^{\frac{9}{2}} - 1$	B	$r = +\left(\frac{141}{300}\right)^{\frac{1}{9}} + 1$
C	$r = -\left(\frac{141}{300}\right)^{\frac{1}{9}} - 1$		

8 Rearrange this equation to solve for the rate given this model of a decline of a whale population (yearly breeding cycle)?

$$199 = 300 \cdot (1 - r)^{(8)}$$

A	$r = -\left(\frac{199}{300}\right)^{\frac{1}{8}} - 1$	B	$r = +\left(\frac{199}{300}\right)^{\frac{1}{8}} + 1$
C	$r = -\left(\frac{199}{300}\right)^{\frac{8}{8}} - 1$		