mobius

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

1 Solve for the starting cash given this model of a balance of a charitable endowment (weekly disbursements)?

$$207 = P_0 \cdot (1 - 0.04)^{(9)}$$

A	$P_0 = \frac{P}{(1-r)^t}$	B	$P_0 = \frac{P}{(1+r)^t}$
C	$P_0 = P \cdot (1-r)^t$		

2 Solve for the starting cash given this model of a balance of a charitable endowment (weekly disbursements)?

$$461 = P_0 \cdot (1 - 0.02)^{(4)}$$

A	B
$P_0 = P \cdot (1-r)^t$	$P_0 = \frac{P}{(1-r)^t}$

3 Solve for the starting population given this model of a decline of a whale population (yearly breeding cycle)?

$$376 = P_0 \cdot (1 - 0.02)^{(3)}$$

A	$P_0 = \frac{P}{(1-r)^t}$	B	$P_0 = P \cdot (1-r)^t$
C	$P_0 = \frac{P}{(1+r)^t}$		

4 Solve for the starting population given this model of a decline of a whale population (yearly breeding cycle)?

$$662 = P_0 \cdot (1 - 0.09)^{(2)}$$

A	$P_0 = \frac{P}{(1-r)^t}$	B	$P_0 = \frac{P}{(1+r)^t}$
C	$P_0 = P \cdot (1-r)^t$		

5 Solve for the starting population given this model of a decline of a bird population (yearly breeding cycle)?

$$187 = P_0 \cdot (1 - 0.09)^{(5)}$$

A	$P_0 = \frac{P}{(1+r)^t}$	B	$P_0 = P \cdot (1-r)^t$
C	$P_0 = \frac{P}{(1-r)^t}$		

6 Solve for the starting population given this model of a decline of a whale population (yearly breeding cycle)?

$$416 = P_0 \cdot (1 - 0.02)^{(9)}$$

A	B
$P_0 = \frac{P}{(1-r)^t}$	$P_0 = \frac{P}{(1+r)^t}$

7 Solve for the starting population given this model of a decline of a bird population (yearly breeding cycle)?

$$456 = P_0 \cdot (1 - 0.03)^{(9)}$$

A	$P_0 = \frac{P}{(1+r)^t}$	B	$P_0 = P \cdot (1-r)^t$
C	$P_0 = \frac{P}{(1-r)^t}$		

8 Solve for the starting population given this model of a decline of a bird population (yearly breeding cycle)?

$$330 = P_0 \cdot (1 - 0.08)^{(9)}$$

A	$P_0 = \frac{P}{(1+r)^t}$	B	$P_0 = P \cdot (1-r)^t$
C	$P_0 = \frac{P}{(1-r)^t}$		