Name

1

A bird population starts at a certain size. Each subsequent year it declines by 6%. After 7 years it has decreased to a population of 194.

How would you solve for the starting population given this scenario?

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

2

A charitable endowment starts with a certain amount of money. Each yearly it disburses 5% of its remaining funds. After 3 years its funds have decreased to $771.

How would you solve for the starting cash given this scenario?

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

3

A toxin starts at a certain concentration. Each weekly dialysis reduces it by 3%. After 2 weeks it has decreased to a concentration of 658mg/L.

How would you solve for the starting concentration given this scenario?

A $C_0 = \dfrac{C}{(1-r)^t}$	B $C_0 = \dfrac{C}{(1+r)^t}$
C $C_0 = C \cdot (1-r)^t$	

4

A bird population starts at a certain size. Each subsequent year it declines by 4%. After 9 years it has decreased to a population of 554.

How would you solve for the starting population given this scenario?

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

5

A toxin starts at a certain concentration. Each hourly dialysis reduces it by 9%. After 7 hours it has decreased to a concentration of 258mg/L.

How would you solve for the starting concentration given this scenario?

A $C_0 = \dfrac{C}{(1+r)^t}$	B $C_0 = \dfrac{C}{(1-r)^t}$
C $C_0 = C \cdot (1-r)^t$	

6

A whale population starts at a certain size. Each subsequent year it declines by 4%. After 3 years it has decreased to a population of 796 whales.

How would you solve for the starting population given this scenario?

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

7

A whale population starts at a certain size. Each subsequent year it declines by 4%. After 6 years it has decreased to a population of 704 whales.

How would you solve for the starting population given this scenario?

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

8

A toxin starts at a certain concentration. Each weekly dialysis reduces it by 4%. After 7 weeks it has decreased to a concentration of 676mg/L.

How would you solve for the starting concentration given this scenario?

A $C_0 = \dfrac{C}{(1+r)^t}$	B $C_0 = C \cdot (1-r)^t$
C $C_0 = \dfrac{C}{(1-r)^t}$	