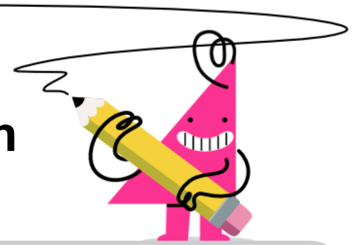
Name ____________________

Exponential Function Solving - Growth (Discrete) Scenario to Value at Time



1

An insect population starts at 800. Each subsequent yearly breeding season it grows by 5%. After 4 years it has increased to a certain population.

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

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

2

A rabbit population starts at 700. Each subsequent yearly breeding season it grows by 5%. After 6 years it has increased to a certain population.

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

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

3

A savings account starts with $800. Each subsequent month it earns 2% in interest. After 5 months it has a certain amount of cash.

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

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

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

4

An insect population starts at 600. Each subsequent yearly breeding season it grows by 3%. After 8 years it has increased to a certain population.

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

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

5

An insect population starts at 300. Each subsequent yearly breeding season it grows by 7%. After 8 years it has increased to a certain population.

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

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

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

6

A savings account starts with $600. Each subsequent month it earns 4% in interest. After 5 months it has a certain amount of cash.

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

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

7

An insect population starts at 600. Each subsequent yearly breeding season it grows by 3%. After 4 years it has increased to a certain population.

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

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

8

A credit card starts with $800 of debt. Each subsequent month it grows by 4% in interest. After 2 months the debt has grown to a certain amount.

How would you solve for the final debt given this scenario?

A $D = D_0 \cdot (1 + r)^{(t)}$	B $D = \frac{D_0}{(1 + r)^{(t)}}$
C $D = D_0 \cdot (1 - r)^{(t)}$	