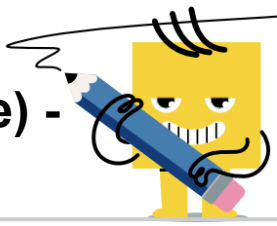
Name

Exponential Function Growth (Discrete) - Scenario to Equation



1

A savings account starts with $800. Each subsequent quarter it earns 9% in interest. After 5 quarters it has $1,230.

Which equation describes this scenario?

A $1,230 = 800 \cdot (1 + 0.09)^{(5)}$

B $1,230 = 900 \cdot (1 + 0.08)^{(5)}$

C $1,230 = 500 \cdot (1 + 0.09)^{(8)}$

2

An insect population starts at 300. Each subsequent yearly breeding season it grows by 2%. After 4 years it has increased to a population of 324.

Which equation describes this scenario?

A $324 = 400 \cdot (1 + 0.02)^{(3)}$

B $324 = 300 \cdot (1 + 0.04)^{(2)}$

C $324 = 300 \cdot (1 + 0.02)^{(4)}$

D $324 = 200 \cdot (1 + 0.03)^{(4)}$

3

A savings account starts with $600. Each subsequent year it earns 2% in interest. After 9 years it has $717.

Which equation describes this scenario?

A $717 = 200 \cdot (1 + 0.06)^{(9)}$

B $717 = 600 \cdot (1 + 0.02)^{(9)}$

C $717 = 900 \cdot (1 + 0.02)^{(6)}$

4

An insect population starts at 300. Each subsequent yearly breeding season it grows by 6%. After 9 years it has increased to a population of 506.

Which equation describes this scenario?

A $506 = 300 \cdot (1 + 0.06)^{(9)}$

B $506 = 600 \cdot (1 + 0.03)^{(9)}$

C $506 = 300 \cdot (1 + 0.09)^{(6)}$

D $506 = 900 \cdot (1 + 0.06)^{(3)}$

5

A credit card starts with $800 of debt. Each subsequent quarter it grows by 2% in interest. After 3 quarters the debt has grown to $848.

Which equation describes this scenario?

A $848 = 300 \cdot (1 + 0.02)^{(8)}$

B $848 = 200 \cdot (1 + 0.08)^{(3)}$

C $848 = 800 \cdot (1 + 0.03)^{(2)}$

D $848 = 800 \cdot (1 + 0.02)^{(3)}$

6

An insect population starts at 500. Each subsequent yearly breeding season it grows by 6%. After 9 years it has increased to a population of 844.

Which equation describes this scenario?

A $844 = 500 \cdot (1 + 0.09)^{(6)}$

B $844 = 500 \cdot (1 + 0.06)^{(9)}$

C $844 = 900 \cdot (1 + 0.06)^{(5)}$

D $844 = 600 \cdot (1 + 0.05)^{(9)}$

7

An insect population starts at 900. Each subsequent yearly breeding season it grows by 6%. After 2 years it has increased to a population of 1,011.

Which equation describes this scenario?

A $1,011 = 900 \cdot (1 + 0.06)^{(2)}$

B $1,011 = 600 \cdot (1 + 0.09)^{(2)}$

C $1,011 = 200 \cdot (1 + 0.06)^{(9)}$

8

A savings account starts with $700. Each subsequent month it earns 4% in interest. After 2 months it has $757.

Which equation describes this scenario?

A $757 = 200 \cdot (1 + 0.04)^{(7)}$

B $757 = 700 \cdot (1 + 0.04)^{(2)}$

C $757 = 700 \cdot (1 + 0.02)^{(4)}$