Name _____

1

A credit card starts with a certain amount of debt. Each subsequent quarter it grows by 6% in interest. After 24 months the debt has grown to $809.

Rearrange the exponential equation to solve for for the starting debt given this scenario?

A $D_0 = \dfrac{809}{(1-0.06)^{\frac{24}{3}}}$ B $D_0 = \dfrac{809}{(1+0.06)^{\frac{24}{3}}}$

C $D_0 = 809 \cdot (1+0.06)^{24 \cdot 3}$

2

A savings account starts with a certain amount of cash. Each subsequent month it earns 9% in interest. After 6 years it has $838.

Rearrange the exponential equation to solve for for the starting cash given this scenario?

A $P_0 = \dfrac{838}{(1+0.09)^{6 \cdot 12}}$ B $P_0 = 838 \cdot (1+0.09)^{\frac{6}{12}}$

C $P_0 = \dfrac{838}{(1-0.09)^{6 \cdot 12}}$

3

A credit card starts with a certain amount of debt. Each subsequent month it grows by 5% in interest. After 8 quarters the debt has grown to $295.

Rearrange the exponential equation to solve for for the starting debt given this scenario?

A $D_0 = 295 \cdot (1+0.05)^{\frac{8}{3}}$ B $D_0 = \dfrac{295}{(1+0.05)^{8 \cdot 3}}$

C $D_0 = \dfrac{295}{(1-0.05)^{8 \cdot 3}}$

4

A savings account starts with a certain amount of cash. Each subsequent quarter it earns 3% in interest. After 6 years it has $835.

Rearrange the exponential equation to solve for for the starting cash given this scenario?

A $P_0 = \dfrac{835}{(1+0.03)^{6 \cdot 4}}$

B $P_0 = 835 \cdot (1+0.03)^{\frac{6}{4}}$

5

A credit card starts with a certain amount of debt. Each subsequent quarter it grows by 8% in interest. After 2 years the debt has grown to $1,049.

Rearrange the exponential equation to solve for for the starting debt given this scenario?

A $D_0 = \dfrac{1049}{(1+0.08)^{2 \cdot 4}}$ B $D_0 = \dfrac{1049}{(1-0.08)^{2 \cdot 4}}$

C $D_0 = 1049 \cdot (1+0.08)^{\frac{2}{4}}$

6

A credit card starts with a certain amount of debt. Each subsequent quarter it grows by 2% in interest. After 5 years the debt has grown to $331.

Rearrange the exponential equation to solve for for the starting debt given this scenario?

A $D_0 = \dfrac{331}{(1-0.02)^{5 \cdot 4}}$ B $D_0 = \dfrac{331}{(1+0.02)^{5 \cdot 4}}$

7

A savings account starts with a certain amount of cash. Each subsequent year it earns 9% in interest. After 36 months it has $8,900.

Rearrange the exponential equation to solve for for the starting cash given this scenario?

A $P_0 = 8900 \cdot (1+0.09)^{36 \cdot 12}$

B $P_0 = \dfrac{8900}{(1-0.09)^{\frac{36}{12}}}$

C $P_0 = \dfrac{8900}{(1+0.09)^{\frac{36}{12}}}$

8

A savings account starts with a certain amount of cash. Each subsequent year it earns 2% in interest. After 32 quarters it has $1,130.

Rearrange the exponential equation to solve for for the starting cash given this scenario?

A $P_0 = \dfrac{1130}{(1+0.02)^{\frac{32}{4}}}$

B $P_0 = \dfrac{1130}{(1-0.02)^{\frac{32}{4}}}$

C $P_0 = 1130 \cdot (1+0.02)^{32 \cdot 4}$