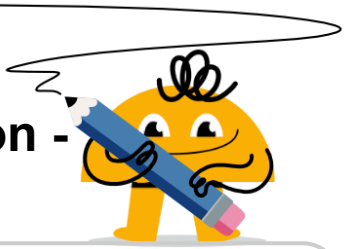
Name



Exponential Function Solution Equation - Growth (Discrete, Mis-matched Time Units) Scenario to Rate

1

A credit card starts with $600 of debt. Each subsequent year it grows by a certain percent interest. After 36 months the debt has grown to $735.

Rearrange the exponential equation to solve for for the rate given this scenario?

A $r = \left(\frac{735}{600}\right)^{\frac{1}{\frac{36}{12}}} - 1$

B $r = \left(\frac{735}{600}\right)^{\frac{\frac{36}{12}}{2}} - 1$

C $r = -\left(\frac{735}{600}\right)^{\frac{1}{36 \cdot 12}} + 1$

2

A savings account starts with $900. Each subsequent quarter it earns a certain percent interest. After 18 months it has $1,428.

Rearrange the exponential equation to solve for for the rate given this scenario?

A $r = \left(\frac{1428}{900}\right)^{\frac{\frac{18}{3}}{2}} - 1$

B $r = \left(\frac{1428}{900}\right)^{\frac{1}{\frac{18}{3}}} - 1$

C $r = -\left(\frac{1428}{900}\right)^{\frac{1}{18 \cdot 3}} + 1$

3

A savings account starts with $400. Each subsequent year it earns a certain percent interest. After 60 months it has $535.

Rearrange the exponential equation to solve for for the rate given this scenario?

A $r = -\left(\frac{535}{400}\right)^{\frac{1}{60 \cdot 12}} + 1$

B $r = \left(\frac{535}{400}\right)^{\frac{1}{\frac{60}{12}}} - 1$

4

A savings account starts with $300. Each subsequent quarter it earns a certain percent interest. After 5 years it has $1,398.

Rearrange the exponential equation to solve for for the rate given this scenario?

A $r = \left(\frac{1398}{300}\right)^{\frac{5 \cdot 4}{2}} - 1$

B $r = -\left(\frac{1398}{300}\right)^{\frac{1}{5 \cdot 4}} + 1$

C $r = \left(\frac{1398}{300}\right)^{\frac{1}{5 \cdot 4}} - 1$

5

A credit card starts with $900 of debt. Each subsequent quarter it grows by a certain percent interest. After 21 months the debt has grown to $1,266.

Rearrange the exponential equation to solve for for the rate given this scenario?

A $r = \left(\frac{1266}{900}\right)^{\frac{1}{\frac{21}{3}}} - 1$

B $r = \left(\frac{1266}{900}\right)^{\frac{\frac{21}{3}}{2}} - 1$

C $r = -\left(\frac{1266}{900}\right)^{\frac{1}{21 \cdot 3}} + 1$

6

A savings account starts with $700. Each subsequent quarter it earns a certain percent interest. After 6 months it has $816.

Rearrange the exponential equation to solve for for the rate given this scenario?

A $r = \left(\frac{816}{700}\right)^{\frac{6}{\frac{3}{2}}} - 1$

B $r = -\left(\frac{816}{700}\right)^{\frac{1}{6 \cdot 3}} + 1$

C $r = \left(\frac{816}{700}\right)^{\frac{1}{3}} - 1$

7

A credit card starts with $400 of debt. Each subsequent month it grows by a certain percent interest. After 2 years the debt has grown to $813.

Rearrange the exponential equation to solve for for the rate given this scenario?

A $r = -\left(\frac{813}{400}\right)^{\frac{1}{\frac{2}{12}}} + 1$

B $r = \left(\frac{813}{400}\right)^{\frac{1}{2 \cdot 12}} - 1$

C $r = \left(\frac{813}{400}\right)^{\frac{2 \cdot 12}{2}} - 1$

8

A savings account starts with $600. Each subsequent year it earns a certain percent interest. After 8 quarters it has $648.

Rearrange the exponential equation to solve for for the rate given this scenario?

A $r = -\left(\frac{648}{600}\right)^{\frac{1}{8 \cdot 4}} + 1$

B $r = \left(\frac{648}{600}\right)^{\frac{1}{\frac{8}{4}}} - 1$

C $r = \left(\frac{648}{600}\right)^{\frac{\frac{8}{4}}{2}} - 1$