



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

1 Rearrange this equation to solve for the rate given this model of a monthly compounding growth of money in a savings account?

$$259 = 200 \cdot (1 + r)^{(3 \cdot 3)}$$

A $r = -\left(\frac{259}{200}\right)^{\frac{1}{3 \cdot 3}} + 1$

B $r = \left(\frac{259}{200}\right)^{\frac{1}{3 \cdot 3}} - 1$

C $r = \left(\frac{259}{200}\right)^{\frac{3 \cdot 3}{2}} - 1$

2 Rearrange this equation to solve for the rate given this model of a yearly compounding growth of money in a savings account?

$$2,872 = 700 \cdot (1 + r)^{\left(\frac{36}{12}\right)}$$

A $r = \left(\frac{2872}{700}\right)^{\frac{1}{\frac{36}{12}}} - 1$

B $r = -\left(\frac{2872}{700}\right)^{\frac{1}{36 \cdot 12}} + 1$

3 Rearrange this equation to solve for the rate given this model of a growth in credit card debt with quarterly interest?

$$717 = 600 \cdot (1 + r)^{\left(\frac{9}{3}\right)}$$

A $r = -\left(\frac{717}{600}\right)^{\frac{1}{\frac{9}{3}}} + 1$

B $r = \left(\frac{717}{600}\right)^{\frac{9}{3}} - 1$

C $r = \left(\frac{717}{600}\right)^{\frac{1}{3}} - 1$

4 Rearrange this equation to solve for the rate given this model of a yearly compounding growth of money in a savings account?

$$3,155 = 300 \cdot (1 + r)^{\left(\frac{60}{12}\right)}$$

A $r = -\left(\frac{3155}{300}\right)^{\frac{1}{\frac{60}{12}}} + 1$

B $r = \left(\frac{3155}{300}\right)^{\frac{60}{12}} - 1$

C $r = \left(\frac{3155}{300}\right)^{\frac{1}{12}} - 1$

5 Rearrange this equation to solve for the rate given this model of a growth in credit card debt with quarterly interest?

$$599 = 300 \cdot (1 + r)^{(9 \cdot 4)}$$

A $r = \left(\frac{599}{300}\right)^{\frac{9 \cdot 4}{2}} - 1$

B $r = \left(\frac{599}{300}\right)^{\frac{1}{9 \cdot 4}} - 1$

C $r = -\left(\frac{599}{300}\right)^{\frac{1}{4}} + 1$

6 Rearrange this equation to solve for the rate given this model of a growth in credit card debt with yearly interest?

$$359 = 200 \cdot (1 + r)^{\left(\frac{12}{4}\right)}$$

A $r = \left(\frac{359}{200}\right)^{\frac{12}{4}} - 1$

B $r = -\left(\frac{359}{200}\right)^{\frac{1}{12 \cdot 4}} + 1$

C $r = \left(\frac{359}{200}\right)^{\frac{1}{4}} - 1$

7 Rearrange this equation to solve for the rate given this model of a growth in credit card debt with monthly interest?

$$1,129 = 800 \cdot (1 + r)^{(4 \cdot 12)}$$

A $r = \left(\frac{1129}{800}\right)^{\frac{1}{4 \cdot 12}} - 1$

B $r = \left(\frac{1129}{800}\right)^{\frac{4 \cdot 12}{2}} - 1$

C $r = -\left(\frac{1129}{800}\right)^{\frac{1}{12}} + 1$

8 Rearrange this equation to solve for the rate given this model of a growth in credit card debt with yearly interest?

$$9,457 = 600 \cdot (1 + r)^{\left(\frac{32}{4}\right)}$$

A $r = \left(\frac{9457}{600}\right)^{\frac{1}{\frac{32}{4}}} - 1$

B $r = -\left(\frac{9457}{600}\right)^{\frac{1}{32 \cdot 4}} + 1$

C $r = \left(\frac{9457}{600}\right)^{\frac{32}{2}} - 1$