



Exponential Function Solution Equation - Growth (Discrete) Scenario to Rate

1

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

A rabbit population starts at 400. Each subsequent yearly breeding season it grows by a certain percent. After 9 years it has increased to a population of 620 rabbits.

A	B
$r = \left(\frac{620}{400}\right)^{\frac{1}{9}} - 1$	$r = -\left(\frac{620}{400}\right)^{\frac{1}{9}} + 1$

2

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

A savings account starts with \$600. Each subsequent quarter it earns a certain percent interest. After 9 quarters it has \$853.

A	B
$r = \left(\frac{853}{600}\right)^{\frac{1}{9}} - 1$	$r = \left(\frac{853}{600}\right)^{\frac{1}{9}} - 1$
C	
$r = -\left(\frac{853}{600}\right)^{\frac{1}{9}} + 1$	

3

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

An insect population starts at 900. Each subsequent yearly breeding season it grows by a certain percent. After 4 years it has increased to a population of 1,012.

A	B
$r = \left(\frac{1012}{900}\right)^{\frac{1}{4}} - 1$	$r = -\left(\frac{1012}{900}\right)^{\frac{1}{4}} + 1$
C	
$r = \left(\frac{1012}{900}\right)^{\frac{1}{4}} - 1$	

4

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

An insect population starts at 400. Each subsequent yearly breeding season it grows by a certain percent. After 2 years it has increased to a population of 441.

A	B
$r = \left(\frac{441}{400}\right)^{\frac{1}{2}} - 1$	$r = -\left(\frac{441}{400}\right)^{\frac{1}{2}} + 1$
C	
$r = \left(\frac{441}{400}\right)^{\frac{1}{2}} - 1$	

5

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

An insect population starts at 200. Each subsequent yearly breeding season it grows by a certain percent. After 7 years it has increased to a population of 300.

A	B
$r = -\left(\frac{300}{200}\right)^{\frac{1}{7}} + 1$	$r = \left(\frac{300}{200}\right)^{\frac{1}{7}} - 1$

6

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

A savings account starts with \$900. Each subsequent quarter it earns a certain percent interest. After 6 quarters it has \$1,206.

A	B
$r = -\left(\frac{1206}{900}\right)^{\frac{1}{6}} + 1$	$r = \left(\frac{1206}{900}\right)^{\frac{1}{6}} - 1$
C	
$r = \left(\frac{1206}{900}\right)^{\frac{1}{6}} - 1$	

7

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

A savings account starts with \$300. Each subsequent year it earns a certain percent interest. After 2 years it has \$349.

A	B
$r = \left(\frac{349}{300}\right)^{\frac{1}{2}} - 1$	$r = \left(\frac{349}{300}\right)^{\frac{1}{2}} - 1$
C	
$r = -\left(\frac{349}{300}\right)^{\frac{1}{2}} + 1$	

8

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

A rabbit population starts at 400. Each subsequent yearly breeding season it grows by a certain percent. After 5 years it has increased to a population of 561 rabbits.

A	B
$r = \left(\frac{561}{400}\right)^{\frac{1}{5}} - 1$	$r = \left(\frac{561}{400}\right)^{\frac{1}{5}} - 1$
C	
$r = -\left(\frac{561}{400}\right)^{\frac{1}{5}} + 1$	