

Re: solving CAGR challenge

Source: <http://sci.tech-archive.net/Archive/sci.math/2008-01/msg04078.html>

- *From:* quasi <quasi@xxxxxxxx>
 - *Date:* Fri, 25 Jan 2008 20:07:11 -0500
-

On Fri, 25 Jan 2008 13:38:55 -0800 (PST), pete <ptgallant@xxxxxxxx> wrote:

I want to rearrange the following formula to solve for R where

$$V = (S * ((1 + R)^{(N+1)} - 1) / (R)) - S.$$

where:

$$S = 10$$

$$V = 39.93375$$

$$N = 3$$

I know the answer is .15.

Essentially, if I compound a starting amount of 10 at a rate of 15% for 3 years, the cumulative sum is 39.93375. How do I solve for the rate if I am given the cumulative sum, the period in years, and the starting amount?

For the numbers you specified, you can solve exactly using elementary algebra.

Make sure to use rational numbers instead of decimals.

Simply substitute the given numbers in the equation, get all the terms on one side, zero on the other side, then factor.

quasi

.