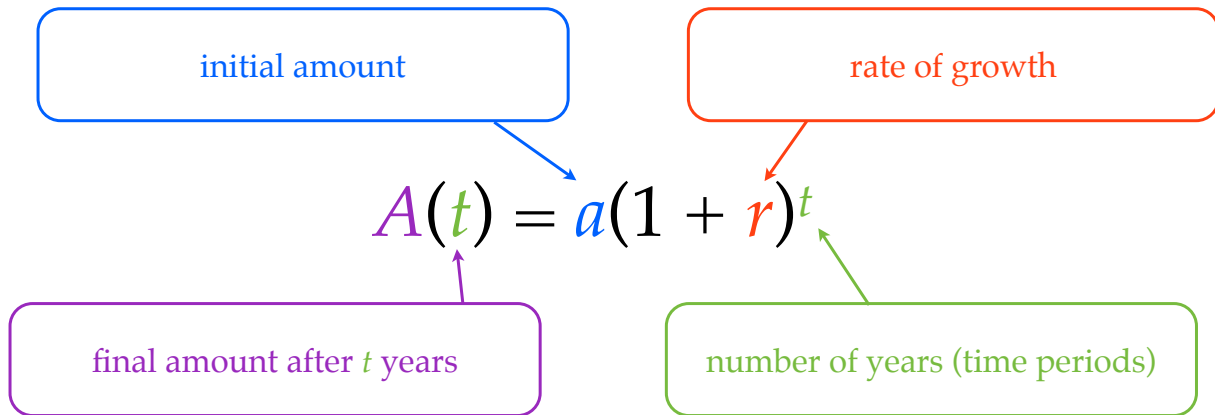


## Basic Exponential Growth



In 1990, there were 1250 students at Katy High School. If the number of students increased by 3% each year, how many students were at Katy High School in 1997? 2004?

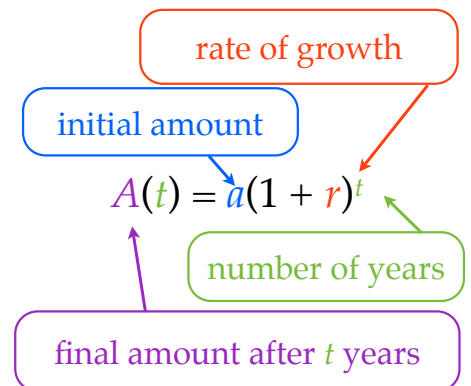
$$A(t) =$$

$$a =$$

$$r =$$

$$t =$$

for 1997



In 1990, there were 1250 students at Katy High School. If the number of students increased by 3% each year, how many students were at Katy High School in 1997? 2004?

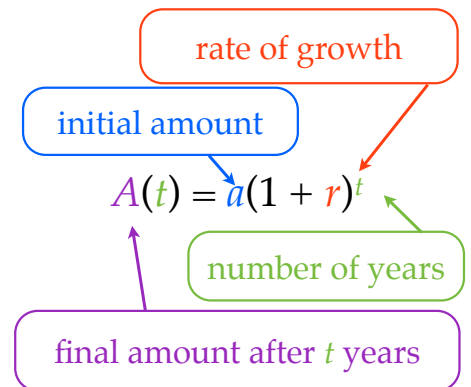
$$A(t) =$$

$$a =$$

$$r =$$

$$t =$$

for 2004



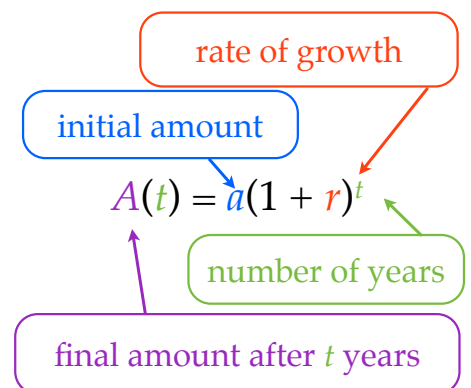
You deposit \$500 in a bank account that pays you 6% interest each year. How much money will you have in 5 years? 25 years?

$$A(t) =$$

$$a =$$

$$r =$$

$$t =$$



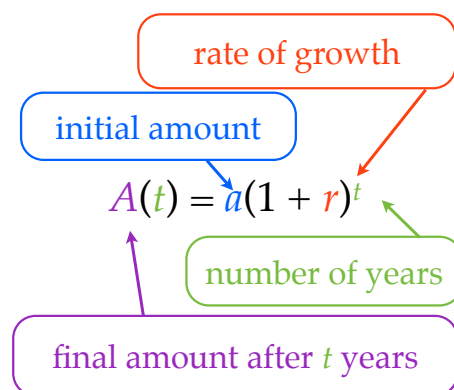
You deposit \$500 in a bank account that pays you 6% interest each year.  
 How much money will you have in 5 years? 25 years?

$$A(t) =$$

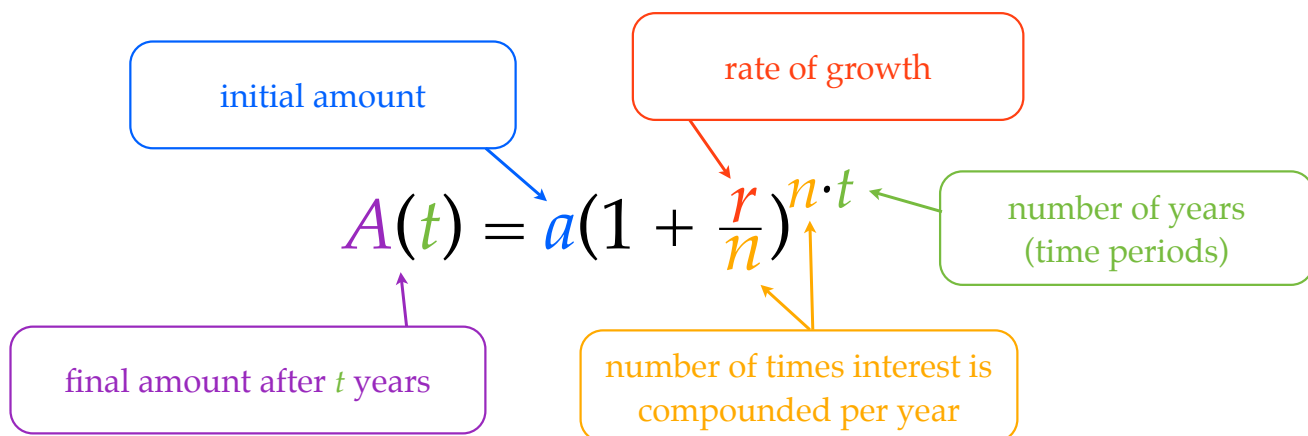
$$a =$$

$$r =$$

$$t =$$



### Compound Interest Equation



compounded annually;  $n = 1$   
 compounded semi-annually;  $n = 2$

compounded quarterly;  $n = 4$   
 compounded monthly;  $n = 12$

You deposit \$500 in a bank account that pays you 6% interest.  
 How much money will you have in 25 years if your interest is  
 compounded annually? quarterly? monthly?

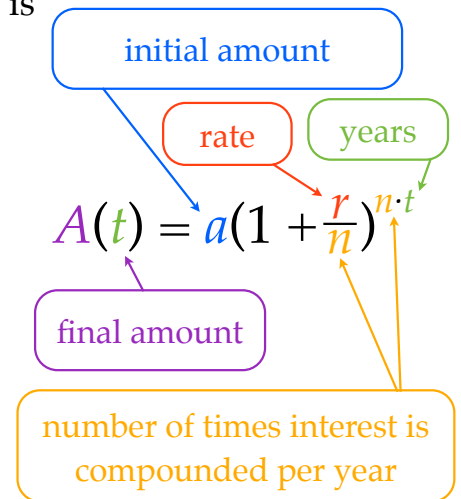
$$A(25) =$$

$$a =$$

$$r =$$

$$t =$$

$$n =$$
  
 annually



You deposit \$500 in a bank account that pays you 6% interest.  
 How much money will you have in 25 years if your interest is  
 compounded annually? quarterly? monthly?

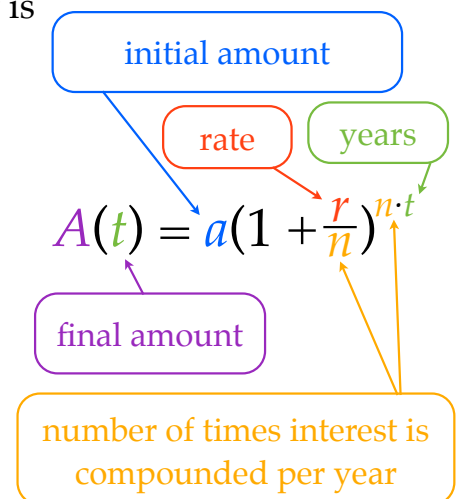
$$A(25) =$$

$$a =$$

$$r =$$

$$t =$$

$$n =$$
  
 quarterly



You deposit \$500 in a bank account that pays you 6% interest.  
 How much money will you have in 25 years if your interest is compounded annually? quarterly? monthly?

$$A(25) =$$

$$a =$$

$$r =$$

$$t =$$

$$n =$$
  
 monthly

