



12)  $0.75(3)^x$

Y-int = 0.75

13)  $y = 3^x$

$a = 1$   
 $b = 3$

$2^x$

$1^x$

Rate of Growth or Decay

$$F(t) = a(1+r)^t$$

$y = ab^x$

Number of Time periods

Amount after "t" Time periods

Initial Amount

You invest \$1,000 in Savings.  
It pays 5% annual interest  
How much money will be in the  
account after 6 years.

$$F(6) = 1000(1 + 0.05)^6$$
$$1000(1.05)^6$$
$$1000(1.34) = 1,340.10$$

Your new computer cost \$1500 but it depreciates in value by about 18% each year.

- a) Write an equation that would indicate the value of the computer at x years.

$$F(x) = 1500(1 - 0.18)^x$$

$$y = ab^x$$

- b) How much will your computer be worth in 6 years?

$$F(6) = 1500(0.82)^6$$

$$\begin{array}{r} 1.00 \\ - 0.18 \\ \hline 0.82 \end{array}$$

4 times  
a year

You invest \$100,000 in an account with 1.01% interest, compounded quarterly. Assume you don't touch the money or add money other than the earned interest.

a) Write an equation that gives the amount of money,  $y$ , in the account after  $x$  years.

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