

Practice

1. If you deposit \$1000 in an account paying 6% interest compounded continuously, how long will it take for you to have \$1500 in your account?
  
  
  
  
  
  
  
  
  
  
2. A population of 300 bacteria grows continuously at a rate of 3%. How long would it take for the population to reach 3000 bacteria?
  
  
  
  
  
  
  
  
  
  
3. Find the rate of decay for an element that starts with 80 grams and has 52 grams after 2 years.

Suppose you invest \$3,000. Your investment rate is 3%. How long would it take for you to make double what you invested with compounding your investment semi-annually?

Suppose you invest \$1,000. Your investment rate is 3%. How long would it take for you to make 5 times as much as you invested with compounding your investment quarterly?

Suppose you invest \$2,500. Your investment rate is 6%. How long would it take for you to make double what you invested with compounding your investment weekly?

Suppose you invest \$1,500. Your investment rate is 1%. How long would it take for you to make triple what you invested with compounding your investment monthly?