1) If you invest $150 in an account, find out how long it will take for your investment to be $1000 if the interest rate is 2% compounded monthly.

2) Suppose David invests $100 at 12% interest, compounded annually. How long will it take for him to have $180?

3) The world population in 2000 was approximately 6.08 billion. The annual rate of increase was about 1.26%. Find the world population in 2010.

4) Kaylin invests $100 at 5.2% interest compounded continuously. Find Kaylin's balance after each of the following time periods.
   a) 5 years           b) 10 years           c) 40 years

5) Josephine invests $2000 at 2.5% interest. Find the balance of Josephine's account after 10 years if interest is compounded on each of the following schedules.
   a) quarterly     b) monthly     c) daily

6) Suppose William only has $3500 to invest but still wants $4000 for a hot Jacuzzi spa. He finds a bank offering 5.25% interest compounded quarterly. How long will he have to leave his money in the account to have $4000?
7) Your new computer cost $1500 but it depreciates in value by about 18% each year. About how long will it take before your computer is worth close to $500?

8) Find the value
   a) \( \log_3 (1/81) \)  
   b) \( \log_2 15 \)

9) Jamie invests $2000 at 5% interest compounded semiannually. How long will it take for her to have $10,000?

10) Mr. and Mrs. Boyce bought a house for $96,000 in 1995. Real estate values in their area increase approx 4% each year. How many years will it take for their house to be worth $200,000?