EXERCISE

1. At what rate must $287.50 be compounded annually for it to grow to $650.01 in 14 years?

2. You decide you want your child to be a millionaire. You have a son today and you deposit $10,000 in an investment account that earns 7% per year. The money in the account will be distributed to your son whenever the total reaches $1,500,000. How old will your son be when he gets the money (rounded to the nearest year)?

3. What is the present value of $11,463 to be received 7 years from today? Assume a discount rate of 3.5% compounded annually and round to the nearest $1.

4. How much money must be put into a bank account yielding 6.42% (compounded annually) in order to have $1,671 at the end of 11 years (round to nearest $1)?

5. You just invested $50,000 into an account that earns 7 percent compounded annually. At the end of each year you can withdraw $4,971. How many years can you continue to make the withdrawals?

6. Anthony borrowed $50,000 today that he must repay in 15 annual end-of-year installments of $5,000. What annual interest rate is Anthony paying on his loan?

7. If you make a monthly payment of $425.84 on a 30-year mortgage for $75,000. What is the interest rate on your mortgage?

8. Your daughter is born today and you want her to be a millionaire by the time she is 35 years old. You open an investment account that promises to pay 12% per year. How much money must you deposit each year, starting on her 1st birthday and ending on her 35th birthday, so your daughter will have $1,000,000 by her 35th birthday?

9. You borrow $25,000 to be repaid in 12 monthly installments of $2,292.00. The annual interest rate is closest to

10. Woody loans you $24,000 for four years to buy a Toyota Prius. The loan must be repaid in 48 equal monthly payments. The annual interest rate on the loan is 9 percent. What is the monthly payment?

11. Your company has received a $50,000 loan from an industrial finance company. The annual payments are $6,202.70. If the company is paying 9 percent interest per year, how many loan payments must the company make? 15

12. What is the present value of an annuity of $4,000 received at the beginning of each year for the next eight years? The first payment will be received today, and the discount rate is 9% (round to nearest $1).

13. Citibank offers you 20% interest compounded monthly. What is the equivalent annual rate?