

Chapter 4 - Ordinary Annuities

1. On Peter's 3rd birthday (September 9, 1986), his parents make the first payment of \$120 into Peter's college fund. They make quarterly payments until March 9, 2004 into an account earning 5%(4). How much money is in the account on June 9, 2008?
2. If you need to save exactly \$8,325 and are making quarterly payments of \$350 into your savings account which is earning 3.5%(4), how many full payments must you make? what is the size of the your final partial payment?
3. You've made a \$50 payment each month into an account starting on January 12, 2000 and making a final payment on July 12, 2009. If you have \$6430 in the account on July 12, 2009, what interest rate are you getting?
4. Joe is willing to pay \$895 a month in mortgage payments (not including escrow) for a standard 30 year mortgage at 4.5%(12). He has also saved \$12,000 as a down payment. What is the most he can afford to pay for his new home?
5. If you need to have \$12,500 to purchase a car in 7 years and can earn 4%(12) on your money, how much are your monthly payments to your savings account?
6. If you need \$7200 to buy a car and can get a 5.25% simple discount loan with monthly payments for 5 years, what is your APR? Find the rebate of interest using the Rule of 78s if you pay off the loan in 3 years and 4 months.
7. You borrow \$9,278 your senior year to pay the last of your tuition payments. If you have to repay the loan in 6 years at 8%(2), how much is each payment?
8. Jon puts \$2200 each year into his IRA earning 7%(1) from ages 28 to 45. How much is in the account at age 45? How much is in the account at age 45 if the ages given are inclusive?
9. If you can buy a diamond engagement ring for \$2800 now or for 20% down and \$200 a month for 12 months, what is the interest rate that you are being financed at?
10. If you have \$3,478 in credit card debt with finance charges of 22.9%(12), and you decide to make \$150 payments each month. How long will it take you to pay off the credit card assuming that you make no further charges on the card? What will be your final payment on the card?
11. If you purchase a new laptop that costs \$1800 using a financing plan that requires 8 quarterly payments of \$300, what is the interest rate you are being charged?
12. Kelly can buy a car that costs \$18,995 now or finance it with \$2,000 down and monthly payments of \$325 for 5 years at 3%(12). Which is the preferred option?