Future Value of Annuities Practice Questions

1. Ms. Carew deposits $1000 at the end of year for six years, with an interest rate of 8% per year, compounded annually. Determine the final amount of the annuity.

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| Year  Deposit |  |

1. Determine the interest rate per compounding period, and the number of compounding periods.

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| Length of Annuity | Compounding Period | Interest Rate per Annum | i | n |
| 7 years | Annually | 3% |  |  |
| 12 years | Semi-Annually | 9% |  |  |
| 8 years | Quarterly | 2.4% |  |  |
| 5 years | Monthly | 18% |  |  |
| 2 years | Daily (just for fun!) | 5% |  |  |

1. Determine the future value of each annuity.
2. R = $200, i = 0.05, n = 3
3. R = $1000, i = 0.08, n = 7
4. R = $700, i = 0.02, n = 12
5. Determine the amount of each ordinary simple annuity.
6. $3000 deposited every year for 10 years at 7% per year compounded annually
7. $650 deposited every 6 months for 8 years at 9% per year compounded semi-annually
8. $1450 deposited every quarter for 9 years at 6.25% per year compounded quarterly
9. $375 deposited every month for 6 years at 5.9% per year compounded monthly
10. $2.00 deposited every day for 2 years at 1.5% per year, compounded daily
11. You deposit $100 at the end of each month, at 6% per year, compounded monthly for four years (your high school career). Determine the final amount of the annuity. Will you have enough for college?
12. Ms. Carew pays $285 bi-weekly on her car loan. The interest rate is 0.9% per year, compounded bi-weekly and her car will be paid off in 5 years.
13. Determine the future value of this annuity.
14. Ms. Carew also made a $5000 down payment. Determine the total amount she will pay for her car.
15. If her car originally cost $29,000, how much interest will she pay?
16. Why do dealerships often prefer you to use their financing?