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**Time Value of Money Problems**

**Please answer the questions below. Please use the Time Value of Money Calculator to answer the problems. (**[**click here**](http://www.grunderware.com/)**)**

*1. If you wish to accumulate $140,000 in 13 years, how much must you deposit today in an account that pays an annual interest rate of 14%?*

*2. What will $247,000 grow to be in 9 years if it is invested today in an account with an annual interest rate of 11%?*

*3. How many years will it take for $136,000 to grow to be $468,000 if it is invested in an account with an annual interest rate of 8%?*

*4. At what annual interest rate must $137,000 be invested so that it will grow to be $475,000 in 14 years?*

*5. If you wish to accumulate $197,000 in 5 years, how much must you deposit today in an account that pays a quoted annual interest rate of 13% with semi-annual compounding of interest?*

*6. What will $153,000 grow to be in 13 years if it is invested today in an account with a quoted annual interest rate of 10% with monthly compounding of interest?*

*7. How many years will it take for $197,000 to grow to be $554,000 if it is invested in an account with a quoted annual interest rate of 8% with monthly compounding of interest?*

*8. At what quoted annual interest rate must $134,000 be invested so that it will grow to be $459,000 in 15 years if interest is compounded weekly?*

*10. If you deposit $16,000 per year for 12 years (each deposit is made at the end of each year) in an account that pays an annual interest rate of 14%, what will your account be worth at the end of 12 years?*

*11. You plan to borrow $389,000 now and repay it in 25 equal annual installments (payments will be made at the end of each year). If the annual interest rate is 14%, how much will your annual payments be?*

*16. You plan to buy a car that has a total "drive-out" cost of $25,700. You will make a down payment of $3,598. The remainder of the car’s cost will be financed over a period of 5 years. You will repay the loan by making equal monthly payments. Your quoted annual interest rate is 8% with monthly compounding of interest. (The first payment will be due one month after the purchase date.) What will your monthly payment be?*