Problem 1: At age 22, you decide to invest the $4,500 your grandma gave you at college graduation in a financial instrument which is compounded quarterly at an API = 11.2%. If you leave the money untouched for 43 years (you'll be age 65), what will be it's value?

Problem 2: At age 22, how much money must you invest (single lump sum) so that in 35 years the money will grow to $310,000? Assume the money is compounded monthly at an API = 10.2%.

Problem 3: You intend to invest $220 each month from your paycheck into an account returning 9.7% API compounded monthly. After 20 years, what will be the future value of this account?

Problem 4: How much money must you invest each month from your paycheck into an account returning 9.7% API compounded monthly so that the account is valued at $387,000 after 35 years?

Problem 5: You take a home loan out for $220,000 over 30 years at an API = 8.5% with monthly payments. What will each monthly payment be?

Problem 6: If you intend to make quarterly payments of $850 on a loan over 20 years at an API = 11.2%, how much will you be able to borrow?

Problem 7 (BONUS): If you intend to make monthly payments of $250 on a loan of $140,000 over 10 years, what interest rate must be obtained?

Problem 8 (BONUS): If you intend to make payments of $250 on a loan of $140,000 over 10 years at an API = 6.75%, how many payments must be made each year?