

ADDITIONAL TIME VALUE OF MONEY PRACTICE II

PROBLEM 1: What interest rate does an ordinary annuity offer if it makes 11 payments of \$13,000 and has a present value of \$91,874?

PROBLEM 2: JPMorgan Chase Bank offers you a \$95,346 loan for 6 years at an annual rate of 8.160%. What will your annual end-of-year payments be?

PROBLEM 3: You deposit \$20 thousand in your Citigroup bank account today. A year from today (and for the next few years thereafter at one year increments), you deposit \$6 thousand, withdraw \$2 thousand, withdraw \$3 thousand, and deposit \$2 thousand. What is the balance in your account **immediately** after your last transaction? After 5 years? Assume the bank pays interest of 3.09% annually.

PROBLEM 4: You make 45 annual deposits of \$3000 at the end of each year into an account. You expect to earn 8% per year. How much money do you expect to have after your last deposit? If in 45 years you decide to make equal annual end of year withdrawals for 29 more years from the amount you just calculated until you have \$0 left in the account, how much will your annual withdrawals be assuming your balance continues to grow at 8% per year?