

For each problem, show your work, including the formulas or arithmetic procedures which you used to get your answer.

- (6 points)** You are hoping to save up \$100,000 by judicious, periodic investments into an interest-bearing account over the next 20 years. You intend to make two contributions per year into an account that bears 2.4% annual interest compounding semiannually. How large does your periodic semiannual contribution need to be in order to achieve your goal?
- (5 points)** You have borrowed \$3000 at an annual interest rate of 4.5% compounding annually, to be repaid with four equal payments of \$836.23 over the next four years. Complete the following amortization schedule, rounding each quantity to the nearest cent.

Year	Starting balance	Payment	Interest	Principal repaid	Ending balance
1					
2					
3					
4					

- (4 points)** A house costs \$165,000 and you are putting 15% down to buy it and taking out a 30-year mortgage at an annual rate of 2.875% with 1.5 points on the loan. Determine, labeling which is which, the size of your down payment and the initial size of the loan.
- (5 points)** You have a \$600 debt on a credit card with a 24% annual interest rate compounding monthly. If you make a payment of \$30 towards your credit card debt each month (and make no more purchases with the card), how many months will it take you to pay off the debt?