1. Find the interest rate to the nearest tenth on the proceeds for a 4-month loan of $43,000 if the bank discounted the loan at 9%.

2. An accountant for a corporation forgot to pay the firm’s income tax of $725,896.15 on time. The government charged a penalty of 9.8% interest for the 34 days the money was late. Find the total amount (tax and penalty) that was paid.

3. A $100,000 CD held for 60 days is worth $101,133.33. To the nearest tenth of a percent, what interest rate was earned?

4. Shalia owes $7000 to the Eastside Music Shop. She agreed to pay the amount in 7 months at an interest rate of 10%. Two months before the loan is due, the store needs $7350 to pay a wholesaler’s bill. The bank will discount the note at a rate of 10.5%. How much will the store receive? Is it enough to pay the bill?

5. Find the interest earned by a deposit of $17,500 at 6.3% compounded monthly for 5.3 years.

6. Find the interest rate with annual compounding that makes $9000 grow to $17,118 in 16 years.

7. Find the effective rate that corresponds to 6.8% compounded quarterly.

8. A developer needs $80,000 to buy land. He is able to borrow the money at 10% per year compounded quarterly. How much will the interest amount to if he pays off the loan in 5 years?

9. A couple plans on buying a home in 3 years. The minimum down payment they will need in 3 years will be $25,000. How much will they need to invest now in a stock that pays 8% compounded quarterly to have enough money for the minimum down payment?

10. Juanita has $15,000 to invest in her retirement plan. She plans on investing the money in a CD that pays 4.5% interest compounded continuously. How many years will it take for this investment to be worth $35,000?
11. Find the future value of the ordinary annuity for which $865 is deposited at 6% compounded semiannually for 10 years.

12. Find the future value of the annuity due for which $750 is deposited at 6% compounded quarterly for 15 years.

13. A father opened a savings account for his daughter on the day she was born, depositing $1000. Each year on her birthday, he deposits another $1000, making the last deposit on her 21st birthday. If the account pays 6.5% interest compounded annually, how much is in the account at the end of the day on the daughter’s 21st birthday?

14. Raul Vasquez, a 25-year-old professional, puts $750 in a retirement fund at the end of each quarter until he reaches age 60. The account pays 8% interest compounded quarterly.  
   a) How much will be in the account when he is 60?  
   b) If Raul makes no further deposits after age 60, how much will he have for retirement at age 65?

15. Find the present value of an ordinary annuity for which $1500 deposited every month at 5.5% compounded monthly for 8.5 years.

16. Find the monthly payment necessary to finance a BMW 3 series for 6-years if the total amount financed is $46,500 at 8.5% interest. Find the total amount of interest paid over the life of the loan.

17. The Taggart family bought a house for $91,000. They paid $20,000 down and took out a 30-year mortgage for the balance at 9%.  
   a) Find their monthly payment.  
   b) How much of the first payment is interest? After 180 payments, the family sold their house for $136,000. They paid closing costs of $3700 plus 2.5% of the sale price.  
   c) Estimate the current mortgage balance at the time of the sale.  
   d) Find the total closing costs.  
   e) Find the amount of money they receive from the sale after paying off the mortgage.