Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Chapter 3 Review**

1. Mitchell deposits $1,200 in an account that pays 4.5% simple interest. He keeps the money in the account for three years without any deposits or withdrawals. How much is in the account after three years?
2. How much simple interest does $2,000 earn in 7 months at an interest rate of 5%?
3. If you deposit $1300 into an account paying 2% annual interest compounded monthly, how much money will be in the account after 5 years?
4. You decide to invest in a savings account at “My Savings Direct” when you turn 18 years old. The account has an annual interest rate of 1.25% (simple interest).
   1. What will be your principal investment (you chose)?
   2. How much money will you have in the account when you are 25 years old?
   3. How much money will you have in the account when you are 40 years old?
5. The Miller’s have a balance of $320.55 in their check register. On their bank statement, the balance on the account is $103.69. Not reported on the bank statement are debits of $14.56, $5.35, $8.92, and $7.48. There are outstanding deposits in the amount of $150 and $103.17. What do the Miller’s need to do to reconcile their checkbook?
6. Bank A is offering a 1.9%, compounded annually, savings account guaranteed for three years. Bank B is offering a 0.6%, compounded monthly, savings account guaranteed for two years. Which bank would yield the most money on a principal of $500.00?

|  |  |
| --- | --- |
| **Bank A** | **Bank B** |

What is the dollar amount difference between the two bank accounts?

1. *Simple Interest vs. Compound Interest:*
   1. How much interest would $4,000 earn, compounded annually, in two years at the rate of 5.3%?
   2. How much interest would $4,000 earn, with simple interest, in two years at the rate of 5.3%?
   3. Compare your answers from number a and b. Explain why they are different. When would you want each situation?
2. Nick deposited $3,000 in a three-year CD account that pays 4.08% interest, compounded weekly. What is the ending balance?
3. Stephanie signed up for a direct deposit transfer into her savings account from her checking account. Every month $150 is withdrawn from her checking account. The interest in this account is at 2.6% compounded monthly. How much will be in the account at the end of 6½ years?
4. Examine each of the following situations, labeled I, II, and III. Identify which of the three cases below applies. ***Do not solve the problems***.

**I.** future value of a single deposit investment

**II.** future value of a periodic deposit investment

**III.** present value of a periodic deposit investment

1. You want to save for a new car that you will buy when you graduate college in 4 years. How much will you be able to afford if you deposit $1,000 per quarter in an account that compounds interest at a rate of 4.1% quarterly?
2. You deposit $3,000 into an account that yields 3.22% interest compounded semiannually. How much will you have in the account in 5 years?
3. You want to put a $40,000 down payment on a storefront for a new business that you plan on opening in 5 years. How much should you deposit monthly into an account with an APR of 3.75%, compounded monthly?
4. Jazmine needs $30,000 to pay off a loan at the end of 5 years. How much must she deposit monthly into a savings account that yields 3% interest, compounded monthly?
5. Tom wants to have $50,000 saved in 10 years so he can buy a house. How much must he deposit every month into an account that pays 2.8% interest, compounded monthly.
6. Carol sold a motorcycle for $7,000. She placed half of the money into a CD with a 2.9% interest rate compounded daily. She placed the other half into a CD with the same interest rate which is compounded monthly. What is the difference in the interest earned on each amount after 5 years?