3.4 Personal Loans, Lines of Credit, and Overdrafts

Denise says that math skills are key to the performance of her duties at work.

MATH ON THE JOB

Denise Morine works at Valley Credit Union. The credit union has 8 branches in Nova Scotia's Annapolis Valley. At work, Denise is responsible for producing financial statements, branch profit reports, and other reports used by management.

Denise also produces monthly and annual budgets for Valley Credit Union. The calculations she completes for the budgets include interest calculations. "I do interest calculations for numerous items when it comes to our annual budgeting process. I have calculations in the monthly budget for customer-owner loans, lines of credit, mortgages and overdrafts," says Denise.

Though computer programs help her with the mathematical aspect of her job, Denise says that it is important to be able to understand and do the calculations without technology. "Even with extensive use of computers, you still need to have math skills to understand how to use the software properly," she says.

Assume that a budget Denise produces includes calculations for a loan of \$12 000.00. The term for the loan is 4 years and the monthly payments are \$277.20. How much interest will be paid on the loan over 4 years?

EXPLORE THE MATH

loan: money that is borrowed for a specific term, to be paid back with interest

amortization period: the time required to pay back a loan

line of credit: an approved loan amount that you can draw on as needed, with interest charged on the money used

overdraft protection: an agreement with a bank that allows you to withdraw more money from an account than you have in it, up to a specified amount

Generally, it is a good idea to wait until you have saved up enough money to buy something. Sometimes, though, it makes sense to borrow money for something, and then pay it back over time. For example, you might need to pay for college, which will help you get a career. Or you might want to buy a vehicle so you can transport tools to your job. In both of these cases, you may need to take out a loan. There are various ways you can borrow money.

- A **loan** is an amount of money that you borrow. You receive the full amount of the loan when you sign the agreement, and interest is calculated from that date to the final date of the loan. The length of time required to pay off the loan is called the **amortization period**.
- A bank **line of credit** is an approved loan amount that gives you quick access to money in case you need it in the future. It has a credit limit, similar to a credit card, and interest is charged on the amount of money used.

- Banks offer **overdraft protection**, which allows you to withdraw more from your account than you have in it, up to an agreed-upon amount. The bank covers the difference for you, but you must make a minimum monthly payment to repay the amount of the overdraft. Interest is charged at a rate similar to that of credit cards and sometimes with a monthly overdraft protection fee.
- You may have seen stores or websites where you can borrow money without having to go to a bank or financial institution. This type of short-term loan is sometimes called a **payday loan** because the term is usually only until your next pay day. Payday loans usually charge high interest rates, with interest compounded daily.

payday loan: a small, short-term loan with a high interest rate intended to cover the borrower's expenses until their next pay day

Whichever way you borrow money, you will have to pay a finance charge. The total amount you pay varies depending on the amount of the loan, the interest rate, the amortization period of the loan, and the amount and number of regular payments.

DISCUSS THE IDEAS

PERSONAL LOANS

A loan can be secured or unsecured. A secured loan means that the borrower has promised to turn over to the lender a particular item of value, such as a car or property, if they **default**, or fail to repay, the principal and interest on the loan. The item of value is **collateral**. An unsecured loan is a loan for which the lender considers you a low risk, so there is no need for collateral.

The interest rate on secured loans is usually lower than the interest rate on unsecured loans.

1. Suggest reasons why the interest rate would be lower on a secured loan.
2. Do you think the amount of money a financial institution would lend someone would change depending on what was being used to secure it? Why or why not?
3. What **assets** might people generally use as collateral to secure a loan?

default: failure to repay a loan

collateral: an item of value pledged by a borrower to secure a loan

asset: an item of economic value owned by an individual that could be converted to cash