**2.3 Solving Problems Involving Credit**

**By the end of the lesson you will be able to:**

1. Define *line of credit*
2. Solve for the number of payments, payment amount, principal amount and total interest involved questions that include credit
3. Compare different options for credit

**Example 1**

John and Anna want to buy furniture worth $1075 on credit. They can make monthly payments of $75 and have two credit options. Which option should they choose?

*Option A*: The furniture store credit card, which is offering a $100 rebate off the purchase price and an interest rate of 18.7% compounded daily.

*Option B*: A new bank credit card, which has an interest rate of 15.4%, compounded daily but no interest for the first year.

**Example 2**

Matthew wants to buy a car and needs to use credit to finance it. The cost, with taxes, is $24,738. Matthew wants to repay his loan in 4 years using monthly payments and has two credit options. Which option should he choose?

*Option A*: The dealerships financing plan at 2.5%, compounded daily

*Option B*: His **secured** **line of credit** at 0.8%, compounded monthly, below the **Bank of Canada rate**, which is currently 3.2%

**Line of Credit:**

Pre-approved loan from the bank with set conditions on how to pay it back, usually includes minimum monthly payments

**Bank of Canada prime rate:**

Value of interest rate set by the Bank of Canada from which other institutions set their interest rates

Example: Prime + 1%

**Example 3**

Tom’s $475 car insurance payment is due. He doesn’t have enough cash to make the payment, so he is considering two credit options:

* Borrow the money from a payday loan company with a $100 fee if it is paid back in full within two months, which he plans to do.
* Get a cash advance on his credit card, which is carrying a zero balance. The interest charged for cash advances is 19.99%, compounded daily, and takes effect immediately. He can afford to pay the required $5 minimum payment after the first month and then plans to pay off the balance in full at the end of the second month.

Which would be a better option for Tom?