5.3 Your Interests: Both simple and compound

- Any time you borrow money from a bank or credit company, or any time that you invest money in the bank there will be interest involved.

- Interest is the charge paid for borrowing money. You pay interest when you make a loan, and the bank will pay interest to you if you deposit money because they are borrowing it from you.

- Interest is done in two ways….. Simple Interest or Compound Interest

**Simple Interest**

Simple interest happens when you calculate the interest on the original amount borrowed at all times. Simple interest always follows the formula $I=prt$ , where ***I*** is the amount of interest paid, ***p*** is the principal amount borrowed, ***r*** is the interest rate charged, and ***t***  is the term of the loan (number of years)

For example: If you borrow $100 and pay a person 5% interest each month for 4 months with simple interest.

The Final Value of any loan or investment will be the Principal plus the Interest.

$$FV=P+I$$

Compound Interest is always calculated on the changing value of the loan or investment. If you borrow money from someone and then make a payment, you don’t owe them as much as you started with, so the amount of interest that you pay should change as well. This is much more fair to the borrower or the investor, but it is more difficult to calculate.

The formula for Compound Interest is: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 Where:

Example: You spend $650 on your credit card and can’t make payments for 3 months. How much would you owe to the company before you start paying if your interest rate is 15% per year.