Lesson 2: Interest

Interest is money paid

- on an investment (money you have in a bank account or money you invested in bonds or GICs for example)
- this is money you would earn

or

- on a loan (money you borrowed)
- this is money you would owe

Recall, we have talked about simple interest and compound interest with bank accounts (a type of investment).

Definitions

Interest: money earned on an investment or money charged for a loan

Interest Rate: a % earned on an investment or charged for a loan

Per annum: interest rate is often expressed as “per annum” which means per year

Principal: initial amount of money invested (deposited) or borrowed (ex: loan)

Term: length of time (in years) over which the money is invested or borrowed

Compounded: when money is compounded, interest earned or owed is recalculated after a period of time.

Example: if an investment is compounded monthly, every month (12 times per year) the principal investment (original amount) plus the interest earned during the month is reinvested.

Compounded ...

- daily = 365 times per year
- weekly = 52 times per year (there are 52 weeks in a year)
- biweekly = 26 times per year (every two weeks)
- semi-monthly = 24 times per year (twice a month)
- monthly = 12 times per year
- bimonthly = 6 times per year
- quarterly = 4 times per year
- semi-annually = 2 times per year
- annually = 1 time per year

1. Click on the link below and watch the video to learn more about the similarities and differences between compound and simple interest. 
   https://www.youtube.com/watch?v=gyiqUQqEeA
   If you were investing money, which method would you prefer? Why? Would this change if you were borrowing money? Explain
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2. There are formulas that can be used to calculate each type of interest. Instead of learning the formulas and practicing them, we are going to focus on using interest calculators available online to do the hard work for us. To calculate simple interest, please use:
   http://www.webmath.com/simpinterest.html
   To calculate compound interest, please use:
   Complete the attached assignment using the calculators provided.
3. The Rule of 72 is a quick and easy way to estimate how long it will take an investment to double if it is invested with compound interest. Watch the video [https://www.youtube.com/watch?v=53LBNbmXIGq](https://www.youtube.com/watch?v=53LBNbmXIGq). Use the rule of 72 to estimate how long it will take a $5000 investment to double if invested at 4% compounded annually. Now use that amount of time and the interest calculator in question 2 (remember this is compound interest) and see how close your estimate was. Surprised?