Simple Interest

Financial institutions compete with each other to handle your savings. They pay clients money as an incentive. The amount of money the bank pays you is called interest.

Simple Interest is calculated using the formula:

$$I = Prt$$

I - is the interest earned (in dollars)

P - is the present value of the money (in dollars)

r - is the interest rate (as a decimal)

t - is the time (in years)

The future value (**FV**) of the money is the amount the present value will be worth in the future including interest.

$$FV = P + I$$

Example 1: Laurie deposits $5000 at 6% per annum (per year) for 3 years.

a) How much simple interest does she earn altogether?

b) How much simple interest does she earn per year?

c) What is the future value (FV) of the investment after 3 years?

Example 2: Cesar Deposits $800 at 5% per annum for 9 months.

    a) How much simple interest does he earn?
    b) What is the future value (FV) after 9 months?

Classwork

1) Calculate the interest earned on each deposit

    a) $9000 deposited at 5% per year for 3 years

    b) $5000 deposited at 4% per year for 2 years

    c) $1000 deposited at 6% per year for 15 months

2) Kim invests $4500 in a 3-year GIC. The interest rate is 5% per year.

a) How much interest does he earn after 3 years?

b) How much interest does he earn **per** year?

c) How much money is in his bank account, including interest, after 3 years? (This is the FV - FUTURE VALUE)

3) Connie saved money for a trip she planned to take in January 2019.

a) On January 4, 2016, she deposited $1500 at 5% per year for 3 years. Find the interest earned.

b) On January 4, 2017, she deposited $2000 at 4% per year for 2 years. Find the interest earned.

c) On January 4, 2018, she deposited $1800 at 6% per year for 1 year. Find the interest earned.

d) How much money did Connie have on January 4, 2018, for her trip?

4) a) Predict which will be worth more when it comes due:

       $4000 invested at 6% per year for 5 years
       Or $4000 invested at 4% per year for 7 year.

   b) Determine each amount to check your prediction.

5) a) Predict which will be worth more when it comes due:

       $2000 invested at 5% per year for 2 years
       Or $4000 invested at 5% per year for 1 year.

   b) Determine each amount to check your prediction.

6) a) When you deposit money in a savings account, why do you think the bank pays you interest on your money?

   b) Why would something like a GIC (google it if you aren't sure) pay a higher interest rate than a savings account?