

Simple and Compound Interest



INTEREST



INTEREST???

• **What is Interest?**

Money that is added to an investment/loan.

• **Investments (money is earned)**

↑ earning interest
↓ pay the interest

"Good interest"

- savings account (very, very small interest)
 - RRSP (registered retirement savings plan)
 - RESP (registered educational savings plan)
- Canada Savings Bonds
- GIC's (guaranteed investment certificate)
- Tax Free Savings Accounts
- Mutual Funds
- Stock Market (no interest, shares)

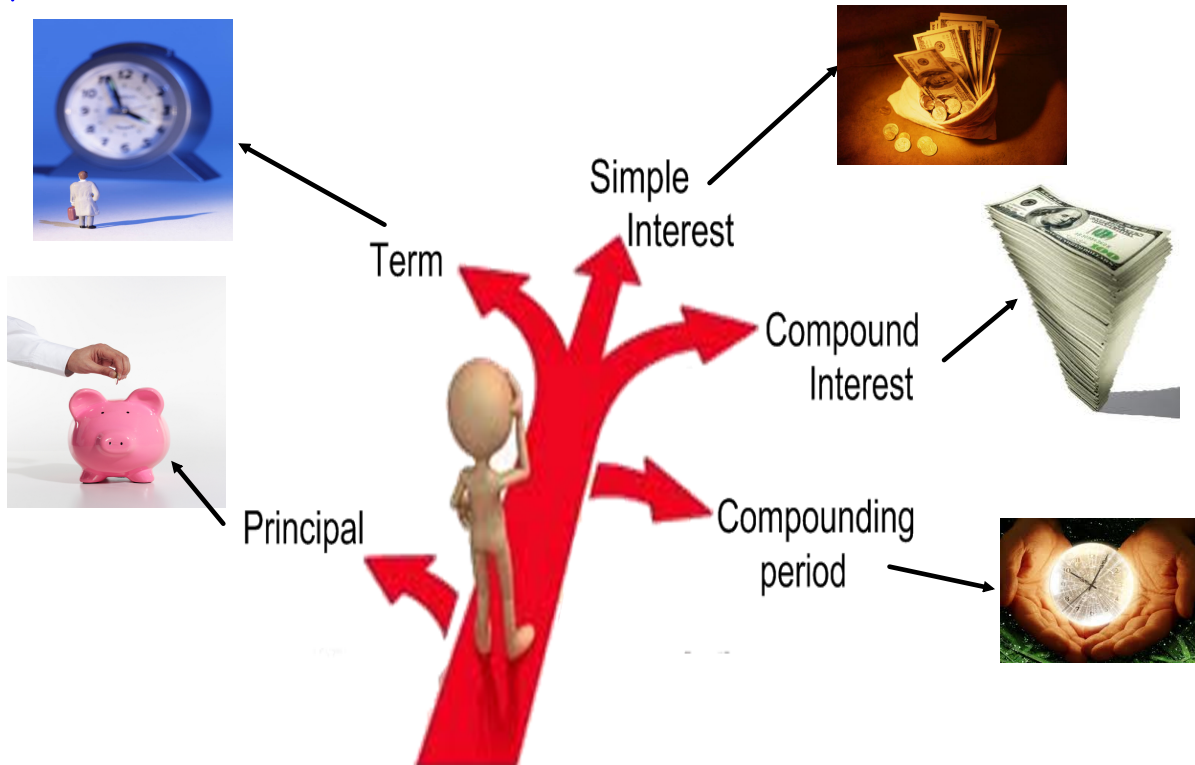
• **Loans (money owed)**

"Bad Interest"

- banks (line of credit, personal loans, mortgage)
- business/stores
- credit cards

INTEREST - What is a good # ?

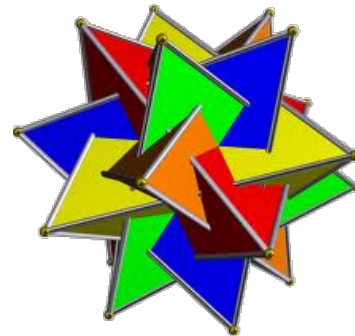
- bank: 7-10 %
- business: 14 - 20%
- credit card (9 - 25 %)



SIMPLE



COMPOUND



SIMPLE Interest

Based on the **principal** (original amount) that is invested/borrowed. Interest is a certain percentage per **annum** (year). Often used for personal loans and short-term investments. The length of time for the investment/loan is called the **term**.

Interest = Principal x rate x time

$$I = Prt$$

$$I = Prt$$

&

$$A = P + I$$



- I - interest earned
- P - principal (original investment/loan)
- r - interest rate as a percent (change to a decimal)
- t - is ALWAYS time in years
(how long the money is invested/borrowed)
- A - amount of money including interest

SIMPLE
Interest



$$I = Prt$$

Time must be in
YEARS!!!

Represent each amount of time in years.

3 months

$$\frac{3}{12} \text{ yr}$$

27 weeks

$$\frac{27}{52} \text{ yr}$$



62 days

$$\frac{62}{365} \text{ yr}$$

$$\frac{365}{365} = 1 \text{ yr}$$

8 years



Gordon wants to invest \$2000.00. ^P
 His bank offers an investment option that earns simple interest at a rate of 1.75% per year for 3 years. ^t

$$1.75 \div 100 = 0.0175$$

$$I = Prt$$

$$I = (2000)(0.0175)(3)$$

$$I = \$105$$

$$\begin{aligned} A &= P + I \\ &= 2000 + 105 \\ &= 2105 \end{aligned}$$

Homework

Page 102 - using the chart provided do questions 1-4

Attachments

Assignment - Simple Interest.doc