M9

## Banking

8.6

1. Investing Money = earning interest

Interest = amount of \$ earned from depositing money into a saving account or investing it in a portfolio, bonds, certified deposits, ...

Simple Interest = interest is calculated from the amount invested at the very beginning, this amount is called the principle.


$$
\begin{aligned}
& I=\text { interest }[\$] \\
& P=\text { principle }=\text { opening balance }[\$] \\
& r=\text { interest rate [decimal] } \\
& t=\text { time [years] }
\end{aligned}
$$

Remember to divide the interest rate \% by 100 to turn it into a decimal.

Example 1: Calculate the interest and the final balance on a saving account that gives $4.5 \%$ annual interest rate given that the opening balance on the account is $\$ 2000.00$ and is deposited for 6 years.

Example 2: Find the final balance on a saving account that offers $3.8 \%$ interest rate.
A) $\quad \$ 5000.00$ is deposited for 4 years.
B) $\quad \$ 12000.00$ is deposited for 6 months.
C) $\quad \$ 2000.00$ is deposited for 8 months.

## 2. Borrowing Money = paying interest. Interest is the cost of borrowing.

Payday Loans $=$ short-term loans with a very high interest rate
Example:
Amount borrowed: \$500.00
Borrowing fee: $\$ 32.00$ per $\$ 100.00$ borrowed Length of borrowing period: 3 weeks
A) Determine the interest charged:
B) Determine the annual interest rate:
C) Find the total to be paid back at the end of the borrowing period:

## Borrowing from a bank:

Amount borrowed: \$500.00
Interest rate: $8.2 \%$ (this is an annual rate)
Length of borrowing period: 3 weeks
A) Determine the interest charged:
B) Determine the annual interest rate:
C) Find the total to be paid back at the end of the borrowing period:

