

## Interest

A person who borrows money usually pays **interest** as a fee for the use of the money.

The money borrowed is called the **principal**.

The sum of the principal and the interest due is called the **amount**.

The **rate of interest** is usually expressed as a percent of the principal for a specified period of time (normally one year).

## Simple & Compound Interest

Interest paid only on the principal borrowed is called **simple interest**.

When the interest for each period is added to the principal in computing the interest for the next period, it is called **compound interest**.

## Simple Interest

Interest = Principal  $\times$  (Interest rate per period)  $\times$  (Number of interest periods)

$$I = Pin$$

Where  $I$  = interest,  $P$  = principal,  $i$  = interest rate per year and  $n$  = number of years

### Example 1

What is the simple interest on €200 at 12% (a) for three years and (b) for two months?

## Exact & Approximate Time

### Example 2

Find (a) the exact time and (b) the approximate time from November 14, 1996 to April 24, 1997.

## Exact & Approximate Time

- 1)  $\frac{\text{Exact time}}{360}$  (Banker's Rule) } for computing ordinary interest
- 2)  $\frac{\text{Approximate time}}{360}$  }
- 3)  $\frac{\text{Exact time}}{365}$  } for computing exact interest
- 4)  $\frac{\text{Approximate time}}{365}$  }