maketitle

Simple Interest is just linear growth in the amount of money. The simple interest rate is just the rate of growth over each period.

- A amount at the beginning, or principal
- ${f S}$ amount at the end, or final amount
- i interest rate per period expressed as a decimal (%/100)
- **n** number of periods

Then we have

$$Amount of Interest = I$$

$$= A \cdot i \cdot n$$

and

$$S = A + I$$

$$= A(1+in)$$

$$A \qquad A(1+i) \quad A(1+2i) \qquad A(1+(n-1)i) \quad S$$

$$0 \qquad 1 \qquad 2 \qquad n-1 \qquad n$$

Read this way \Rightarrow

Notes:

- i is a percentage of the <u>beginning</u> amount, but it is credited at the <u>end</u> of each period.
- Interest rates are annual and the period is a year unless otherwise stated