## Concept - Rearranging Simple Interest

If you need to borrow money the lender will charge you interest. This is a percentage of the amount you borrow. If you make an investment you also earn interest on that investment. The most straightforward way to calculate this interest is as simple interest using the equation.

$$
I=\frac{P \times r \times t}{100}
$$

With a little algebra this equation can be transposed to give equations for $\mathrm{P}, \mathrm{r}$ or t .

You can calculate the total amount using the equation below.

$$
A=P+I
$$

This can be transposed to allow us to find the principle if we know the total amount.

## How to - Use CAS with Simple Interest

You can work out any of the values in the simple interest formula using only the first equation and CAS by following these steps.

1. Start a new (or open a)
 page
2. Press $\qquad$ $\rightarrow$ $\qquad$ $\rightarrow$ $\qquad$
3. Type in the equation with all known values and a letter for the unknown. Don't forget to then type a $\square$
 then $\qquad$
4. Press enter (or ctrl then enter if required) and round your answer to an appropriate number of decimal places.

Eg: How much should be invested to earn interest of \$10500 calculated at 3\% per annum simple interest over 42 months?

