

## Concept – 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.

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

You can calculate the total amount using the equation below.

$$A = P + I$$

In the case of a loan the total amount is \_\_\_\_\_

\_\_\_\_\_

In the case of an investment the total amount is \_\_\_\_\_

\_\_\_\_\_

### How to - Work with simple interest

You can work out the amount of interest charged, the principle, the interest rate per annum or the time using the question above by following these steps.

1. Identify what you are being asked to find.
2. Write down the values you know.
3. Substitute known values into the relevant equation(s)
4. Use Algebra or the solve function on CAS to solve the equation.
5. Answer the question.

Eg: Mark invests \$6500 with a building society whos pays him 7.15% p.a. How much interest will Mark earn in 6 years, and what will be the total amount of his investment at this time?

### Worked Example

*Find an example of a simple interest loan and show all steps required to calculate the total amount of interest owed and the total amount of the loan to be repaid.*