8.2 – Simple Interest

Simple Interest – Interest is paid only at the end of a specified period of time and is only paid on the original amount invested (**principal**).

$$I = Prt$$

I = Interest earned
P = Principal
r = Interest rate per year (in decimal form)
t = Time in years

Example

Future Value – Value after t years. Future value is the principal plus interest.

$$A = P(1+rt)$$

A = Future Value
P = Principal
r = Interest rate per year (in decimal form)
t = Time in years

Example

Present Value – The value needed to be invested at certain interest rate to achieve a specified value after *t* years.   The Future Value formula can be used to find the present value.

Example

Finding the interest rate (*r*) [or time (*t*)].

Example