

Simple interest

$$FV = PV + PV(i)(n)$$

Compound interest

$$FV = PV(1+i)^n$$

Present value

$$PV = \frac{FV}{(1+i)^n}$$

Finding interest rate

$$i = \sqrt[n]{\frac{FV}{PV}} - 1$$

Finding the length of the period

$$n = \frac{\ln(FV / PV)}{\ln(1+i)}$$

Future value of annuity (ordinary)

$$FV_n = PMT \left(\frac{(1+i)^n}{i} - \frac{1}{i} \right)$$

Future value of annuity (due)

$$FV_n(\text{due}) = FV_n(1+i)^n$$

Present value of annuity (ordinary)

$$PV_n = PMT \left(\frac{1}{i} - \frac{1}{i(1+i)^n} \right)$$

Present value of perpetuity

$$PV = \frac{PMT}{i}$$

Present value of uneven cash-flows

$$PV = \frac{CF_1}{(1+i)^1} + \frac{CF_2}{(1+i)^2} + \dots + \frac{CF_n}{(1+i)^n}$$

Future value of uneven cash-flows

$$FV = CF_0(1+i)^N + CF_1(1+i)^{N-1} + \dots + CF_{N-1}(1+i) + CF_N$$

Effective annual rate

$$EFF = \left(1 + \frac{I_{NOM}}{M} \right)^M - 1$$