

## Formulas

$$\text{Simple Interest} = PNR$$

$$\text{Amount when interest is simple} = P(1+NR)$$

$$\text{Compound Interest} = P[(1+r)^n - 1]$$

$$\text{Amount when interest is compound} = P(1+r)^n$$

$$\text{Effective Rate of Interest} = \left(1 + \frac{r}{n}\right)^n - 1$$

$$\text{Future Value} = \text{present value} \times (1+r)^n$$

$$\text{Present Value} = \text{future value} \times \text{Discounting factor}$$

$$\text{Discounting factor} = \frac{1}{(1+r)^n}$$

$$\text{Future Value of Annuity Regular} = \text{Periodical Amt} \times \left[ \frac{(1+r)^n - 1}{r} \right]$$

$$\text{Future Value of Annuity due} = \text{Periodical Amt} \times \left[ \frac{(1+r)^n - 1}{r} \right] \times (1+r)$$

$$\text{Present value of Annuity Regular} = \left[ \frac{\text{Periodical} \times \text{Annuity factor}}{\text{Amt}} \right]$$

$$\text{Present value of Annuity due} = \frac{\text{Periodical}}{\text{Amt}} \times \text{Annuity factor} \times (1+r)$$

$$\text{Present value of perpetuity} = \frac{\text{Periodical Amt}}{r}$$

How to find Discounting factor on calculator? (for n years)  
 $1 \div (1+r)$  then press =, =, = --- till step counts comes n+2.

How to find Annuity factor on calculator? (for n years)  
 $1 \div (1+r)$  then press =, =, = --- till step counts comes n+2 then press **[GT]**.