| DESCRIPTION | FORMULA |
|---|---|
| Present value of a growing annuity | $$PVA = \frac{C}{i-g} \times \left[1 - \frac{(1+g)^N}{(1+i)^N}\right]$$ |
| Present value of a growing perpetuity | $$PVP = \frac{C}{i-g}$$ |
| Expected return and systematic risk (CAPM) | $$E(R_i) = R_{rf} + \beta_i\left[E(R_m) - R_{rf}\right]$$ |
| One period stock price model | $$P_0 = \frac{D_1 + P_1}{1+R}$$ |
| One period stock price model at n | $$P_n = \frac{D_{n+1} + P_{n+1}}{1+R}$$ |
| Zero growth dividend model | $$P_0 = \frac{D}{R}$$ |
| Value of dividend at time n with constant growth | $$D_n = D_0 \times (1+g)^n$$ |
| Constant growth dividend growth model | $$P_0 = \frac{D_1}{R-g}$$ |
| Value of a stock at time n when dividends grow at constant rate | $$P_n = \frac{D_{n+1}}{R-g}$$ |
| Mixed (supernormal) growth dividend model | $$P_0 = \frac{D_1}{1+R} + \frac{D_2}{(1+R)^2} + \cdots + \frac{D_n}{(1+R)^n} + \frac{P_n}{(1+R)^n}$$ |
| Value of preferred stock with a fixed maturity | $$PS_0 = \frac{D/m}{1+i/m} + \frac{D/m}{(1+i/m)^2} + \frac{D/m}{(1+i/m)^3} + \cdots + \frac{D/m + P_{mn}}{(1+i/m)^{mn}}$$ |
| Net Present Value | $$NPV = NCF_0 + \frac{NCF_1}{1+i} + \frac{NCF_2}{(1+i)^2} + \cdots + \frac{NCF_n}{(1+i)^n} = \sum_{t=0}^{n} \frac{NCF_t}{(1+i)^t}$$ |
| Internal Rate of Return | $$NPV = \sum_{t=0}^{n} \frac{NCF_t}{(1+IRR)^t} = 0$$ |
| Payback Period | $$PB = Years\ before\ cost\ recovery + \frac{Remaining\ cost\ to\ recover}{Cash\ flow\ during\ the\ year}$$ |
| Incremental Free Cash Flow | $$FCF_{Project} = FCF_{Firm\ with\ project} - FCF_{Firm\ without\ project}$$ |
| Free Cash Flow Calculation | $$FCF = [(Revenue - OpEx - D\&A) \times (1-t)] + D\&A - CapExp - \Delta WC$$ |
| Incremental additions to working capital | **ΔWC = Change in cash + Change in accounts receivable + Change in inventories − Change in accounts payable** |