

Flow Type	Factor Notation	Formula	Excel Command	Cash Flow Diagram
S I N G L E	Compound amount ($F/P, i, N$)	$F = P(1+i)^N$	= FV($i\%, N, 0, P$)	
	Present worth ($P/F, i, N$)	$P = F(1+i)^{-N}$	= PV($i\%, N, 0, F$)	
E Q U A L	Compound amount ($F/A, i, N$)	$F = A \left[\frac{(1+i)^N - 1}{i} \right]$	= FV($i\%, N, A$)	
	Sinking Fund ($A/F, i, N$)	$A = F \left[\frac{i}{(1+i)^N - 1} \right]$	= PMT($i\%, N, 0, F$)	
P A Y M E N T	Present worth ($P/A, i, N$)	$P = A \left[\frac{(1+i)^N - 1}{i(1+i)^N} \right]$	= PV($i\%, N, A$)	
	Capital recovery ($A/P, i, N$)	$A = P \left[\frac{i(1+i)^N}{(1+i)^N - 1} \right]$	= PMT($i\%, N, P$)	
S E R I E S	Linear gradient Present worth ($P/G, i, N$)	$P = G \left[\frac{(1+i)^N - iN - 1}{i^2(1+i)^N} \right]$		
	Equal-Payment Conversion factor ($A/G, i, N$)	$A = G \left[\frac{(1+i)^N - iN - 1}{i[(1+i)^N - 1]} \right]$		
S E R I E S	Geometric gradient Present worth ($P/A_1, g, i, N$)	$P = \left[\begin{array}{l} A_1 \left[\frac{1 - (1+g)^N(1+i)^{-N}}{i-g} \right] \\ A_1 \left(\frac{N}{1+i} \right), (\text{if } i = g) \end{array} \right]$		

$$P = A_1(P/A, g, i, N)$$

$$g' = (i - g) / (1 + g)$$

$$P = [A_1/(1+g)](P/A, g', N)$$

Discrete Compounding

r – Given yearly interest rate as compounded differently then yearly.
 M – Compounding periods per year
 C – Number of compounding periods per payment period
 i – Interest rate per payment period

$$i = (1 + r/M)^C - 1$$

Continuous Compounding
 K : Periods per period of i

$$i = e^{r/K} - 1$$

Inflation free interest rate

$$i' = (i - f) / (1 + f)$$