Engineering Economy Formulas

Simple Interest Calculations

Name	Formula	Cash Flow Diagram
interest earned over n periods	I = Pni	
future value related to present value	F = P(1+i)	0 1 2 3 4 5
present value related to future value	$P = \frac{F}{1+i}$	lender loans P and collects F after 5 periods <out></out>

Compound Interest Calculations

Name	Formula	Cash Flow Diagram
future value related to present value	$F = P(1+i)^n$	0 1 2 3 4 5
present value related to future value	$P = F(1+i)^{-n}$	lender loans P and collects F after 5 periods <out></out>
future value accumulated due to n periodic deposits of amount A	$F = A \left[\frac{(1+i)^n - 1}{i} \right]$	A A A A A A A A A A A A A A A A A A A
present value related to n future deposits of A	$P = A \left[\frac{(1+i)^n - 1}{i(1+i)^n} \right]$	A A A A A A A A A A A A A A A A A A A