

Table 19.4.1 Summary of Discounting Factors

Type of Discount Factor	Symbol	Given	Find	Factor	
Single-Payment Factors					
Compound-amount factor	$\left(\frac{F}{P}, i\%, n\right)$	P	F	$(1 + i)^n$	
Present-worth factor	$\left(\frac{P}{F}, i\%, n\right)$	F	P	$\frac{1}{(1 + i)^n}$	
Uniform Annual Series Factors					
Sinking-fund factor	$\left(\frac{A}{F}, i\%, n\right)$	F	A	$\frac{i}{(1 + i)^n - 1}$	
Capital-recovery factor	$\left(\frac{A}{P}, i\%, n\right)$	P	A	$\frac{i(1 + i)^n}{(1 + i)^n - 1}$	
Series compound-amount factor	$\left(\frac{F}{A}, i\%, n\right)$	A	F	$\frac{(1 + i)^n - 1}{i}$	
Series present-worth factor	$\left(\frac{P}{A}, i\%, n\right)$	A	P	$\frac{(1 + i)^n - 1}{i(1 + i)^n}$	
Uniform Gradient Series Factors					
Uniform gradient series present-worth factor	$\left(\frac{P}{G}, i\%, n\right)$	G	P	$\frac{(1 + i)^{n+1} - (1 + ni + i)}{i^2(1 + i)^n}$	

Source: Mays, L. W., 2010. Water Resources Engineering. John Wiley & Sons.