

	Explicit	Recursive	Summation
Arithmetic	$a_n = d(n-1) + a_1$	$a_1 =$ $a_n = a_{n-1} + d$	$S_n = n \left(\frac{a_1 + a_n}{2} \right)$
Geometric	$a_n = a_1 \cdot r^{n-1}$	$a_1 =$ $a_n = r \cdot a_{n-1}$	$S_n = a_1 \left(\frac{1-r^n}{1-r} \right)$
$S = \frac{a_1}{1-r}$			
$\sum_{i=1}^n 1 = n$	$\sum_{i=1}^n i = \frac{n(n+1)}{2}$	$\sum_{i=1}^n i^2 = \frac{n(n+1)(2n+1)}{6}$	