

# 11-1 Geometric Sequences

Words	Numbers	Algebra
1st term	3	$a_1$
2nd term	$3 \cdot 2^1 = 6$	$a_1 \cdot r^1$
3rd term	$3 \cdot 2^2 = 12$	$a_1 \cdot r^2$
4th term	$3 \cdot 2^3 = 24$	$a_1 \cdot r^3$
$n$ th term	$3 \cdot 2^{n-1}$	$a_1 \cdot r^{n-1}$

$a_n = a_1 \cdot r^{n-1}$

*Handwritten annotations:*  
 -  $a_n$  is labeled "n<sup>th</sup> term" with a red arrow pointing to the subscript  $n$ .  
 -  $a_1$  is labeled "1<sup>st</sup> term" with a green arrow pointing to the subscript  $1$ .  
 -  $r^{n-1}$  is labeled "Common ratio" with a blue arrow pointing to the  $r$ , and a blue bracket above the  $n-1$  indicating the power.