

**Suite arithmétique – Suite géométrique**

*** Suite arithmétique(s.a)***	*** Suite géométrique(s.g)***
$u_{n+1} = u_n + r$	$v_{n+1} = qv_n$
$u_n = u_0 + nr$	$v_n = v_0 q^n$
$u_p = u_s + (p-s)r$	$v_p = v_s q^{p-s}$
$u_2 - u_1 \neq u_1 - u_0 \Rightarrow u$ non s.a	$\frac{v_2}{v_1} \neq \frac{v_1}{v_0} \Rightarrow v$ non s.g
$\bullet \sum_{k=0}^n x = \overbrace{x+x+\dots+x}^{n+1 \text{ fois } x} = (n+1)x$ $\bullet \sum_{k=0}^n k = 1+2+\dots+n = \frac{n(n+1)}{2}$ $\bullet \sum_{k=0}^n u_k = u_0 + u_1 + \dots + u_n = \frac{(n+1)(u_0 + u_n)}{2}$ $\bullet \sum_{k=p}^n u_k = u_p + u_{p+1} + \dots + u_n = \frac{(n-p+1)(u_p + u_n)}{2}$	<p>pour tout <math>q \in \mathbb{R}^* - \{1\}</math></p> $\bullet \sum_{k=0}^n q^k = 1 + q^1 + \dots + q^n = \frac{1 - q^{n+1}}{1 - q}$ $\bullet \sum_{k=p}^n q^k = q^p + q^{p+1} + \dots + q^n = \frac{q^p - q^{n+1}}{1 - q}$

http://maths-akir.midiblogs.com/

