PROGRESII

	Progresii aritmetice	Progresii geometrice
notație	$(a_1, a_2, a_3, ...)$	$(b_1, b_2, b_3, ...)$
definiție	$a_n = a_{n-1} + r, n \geq 2$ r = constant r $\overset{def}{=}$ ratie	$b_n = b_{n-1} \cdot q, n \geq 2$ q = constant q $\overset{def}{=}$ ratie
formula termenului general	$a_n = a_1 + (n-1)r, n \geq 1$	$b_n = b_1 \cdot q^{n-1}, n \geq 1$
medie	$a_n = \frac{a_{n-1} + a_{n+1}}{2}, n \geq 2$	$b_n = \sqrt{b_{n-1} b_{n+1}}, n \geq 2$
formula termenilor egal depărtați de capetele şirului	$a_1 + a_n = a_k + a_{n-k+1}$ $k \in \{1,...n\}$	$b_1 b_n = b_k b_{n-k+1}$ $k \in \{1,...n\}$
suma unei progresii	$S_n = a_1 + a_2 + ... + a_n, n \geq 1$ $S_n = \frac{n(a_1 + a_n)}{2}, n \geq 1$ $S_n = \frac{n[2a_1 + (n-1)r]}{2}, n \geq 1$	$S_n = b_1 + b_2 + ... + b_n, n \geq 1$ $S_n = \begin{cases} b_1 n, q = 1 \\ \frac{b_1(q^n - 1)}{q-1}, q \neq 1 \end{cases}$
	$a_n = S_n - S_{n-1}, n \geq 2$ $a_1 = S_1$	