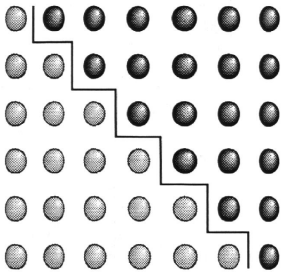
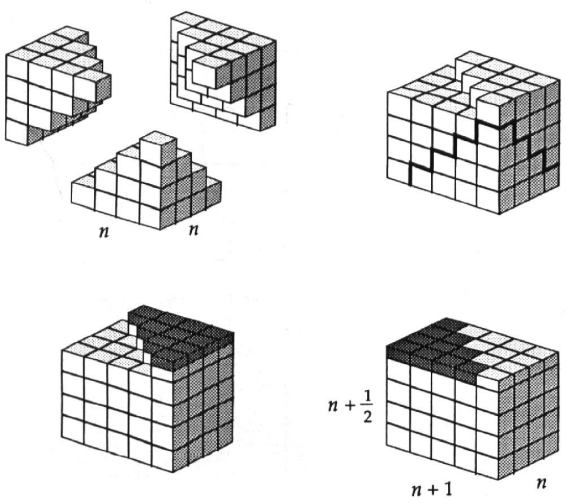
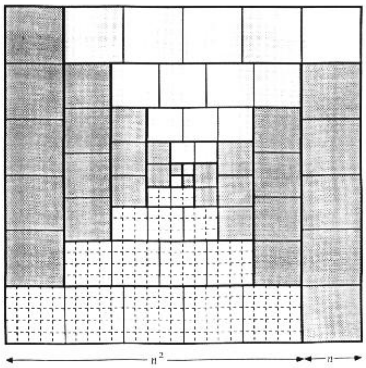
k	$\sum_{i=1}^{n} i^k$
0	n
1	$\frac{1}{2}n(n+1)$
2	$\frac{1}{6}n(n+1)(2n+1)$
3	$\frac{1}{4}n^2(n+1)^2$



$1 + 2 + ... + n = \frac{1}{2}n(n+1)$
— Ancient Greeks



$1^2 + 2^2 + ... + n^2 = \frac{1}{3}n(n+1)(n+\frac{1}{2})$
— Man-Keung Siu



$1^3 + 2^3 + ... + n^3 = \frac{1}{4}[n(n+1)]^2$
— Antonella Cupillari, Warren Lushbaugh

Roger B. Nelsen, *Proofs without Words,* MAA, 0-88385-700-6, 1993