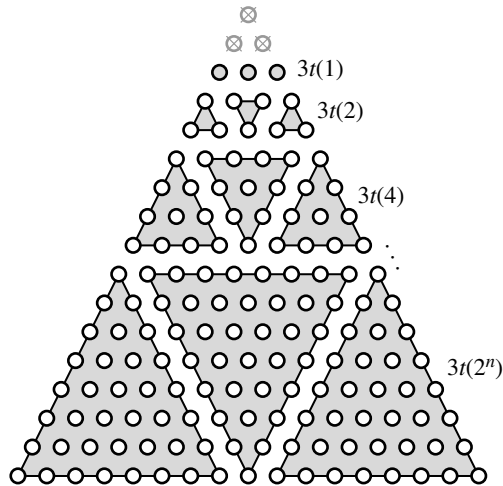


Proof Without Words: A Triangular Sum

$$t(n) = 1 + 2 + \cdots + n \rightarrow \sum_{k=0}^n t(2^k) = \frac{1}{3}t(2^{n+1} + 1) - 1$$

$$t(2^{n+1} + 1) - 3:$$



$$3 \sum_{k=0}^n t(2^k) = t(2^{n+1} + 1) - 3$$

Exercises: (a) $\sum_{k=1}^n t(2^k - 1) = \frac{1}{3}t(2^{n+1} - 2)$

(b) $\sum_{k=0}^n t(3 \cdot 2^k - 1) = \frac{1}{3}[t(3 \cdot 2^{n+1} - 2) - 1]$

—ROGER B. NELSEN
LEWIS & CLARK COLLEGE
PORTLAND OR 97219