

Formule utili

1 Sommatorie notevoli

$$\sum_{i=0}^n i = \frac{n(n+1)}{2} \quad (1)$$

$$\sum_{i=m}^n x^i = \frac{x^{n+1} - x^m}{x - 1} \quad \text{con } x \neq 1 \quad (2)$$

$$\sum_{i=0}^{\infty} x^i = \frac{1}{1-x} \quad \text{con } |x| < 1 \quad (3)$$

$$\sum_{i=2}^n \frac{1}{i} \leq \int_1^n \frac{1}{x} dx = \ln n \quad (4)$$

2 Logaritmi

$$\log_a mn = \log_a m + \log_a n \quad (5)$$

$$\log_a m/n = \log_a m - \log_a n \quad (6)$$

$$\log_a n^k = k \log_a n \quad (7)$$

$$a^{\log_b n} = n^{\log_b a} \quad (8)$$

$$a^{\log_a n} = n \quad (9)$$