

$$c) \quad C_{n+1} = (n+1)C_n + (n^2+n)C_{n-1} \quad / : (n+1)!$$

$$\frac{C_{n+1}}{(n+1)!} = \frac{C_n}{n!} + \frac{C_{n-1}}{(n-1)!} \quad b_n = \frac{C_n}{n!}$$

$$b_{n+1} = b_n + b_{n-1} \quad b_0 = 0 \quad b_1 = 1$$

wie Fibonacci

$$C_n = n! \left(\frac{1}{\sqrt{5}} \left(\frac{1+\sqrt{5}}{2} \right)^n - \frac{1}{\sqrt{5}} \left(\frac{1-\sqrt{5}}{2} \right)^n \right)$$