

$$8. \quad a_n \in \mathbb{N} \quad (n \in \mathbb{N}) \quad a_1 = 1 \quad a_{n+1} = a_1 + a_2 + \dots + a_n \quad \square$$

$$\text{zz: } a_n = 2^{n-2} \quad \text{für } n \geq 3$$

$$n=3: a_3 = a_1 + a_2 = 1 + 1 = 2 \quad 2^{3-2} = 2^1 = 2 \quad \checkmark$$

$$n+1: a_{n+1} = \underbrace{a_1 + a_2 + \dots + a_{n-1} + a_n}_{a_n} = 2 \cdot a_n = 2 \cdot 2^{n-2} =$$

$$= 2^{n-2+1} = 2^{(n+1)-2} \quad \square$$