

Musterlösung

Übung 1

Die Lösungsformel ist:

$$(a + k)^b = \sum_{i=0}^b \binom{b}{i} a^{b-i} k^i$$

$$\sum_{k=0}^n (a + k)^b = \sum_{k=0}^n \sum_{i=0}^b \binom{b}{i} a^{b-i} k^i$$

$$= \sum_{i=0}^b \sum_{k=0}^n \binom{b}{i} a^{b-i} k^i = \sum_{i=0}^b \binom{b}{i} a^{b-i} \sum_{k=0}^n k^i$$