

# Ausklammern

Unter „Ausklammern“ versteht man, dass **Summenterme** in **Produkte** umgewandelt werden.

# Beispiel 1

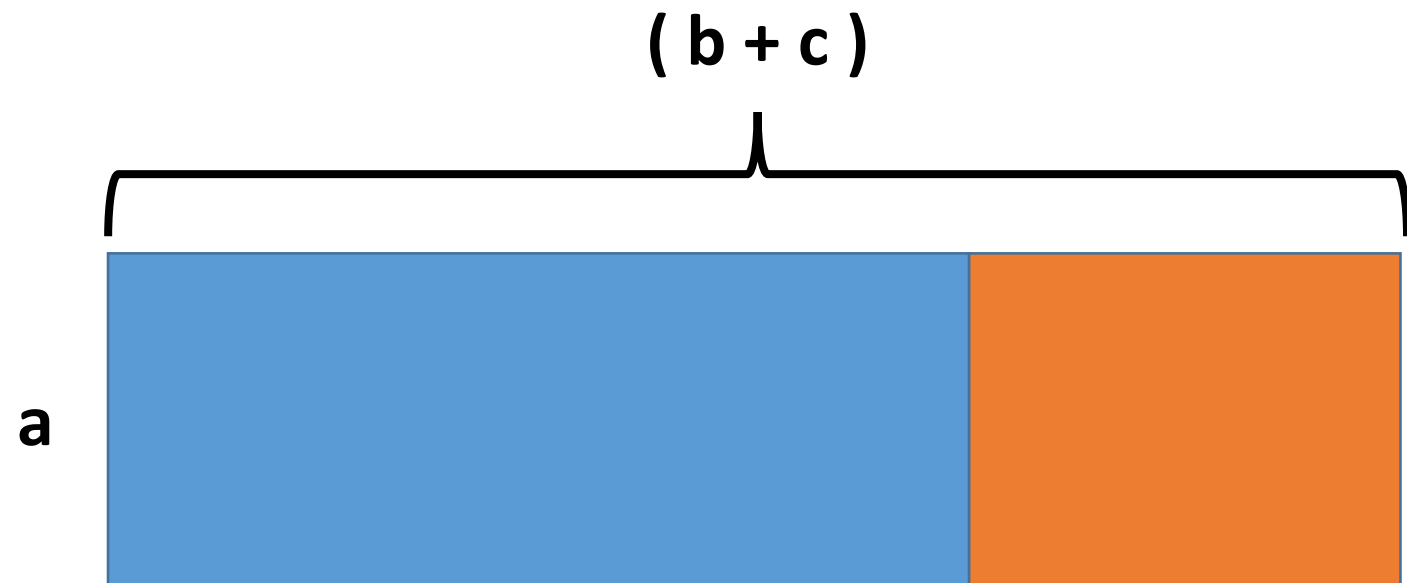
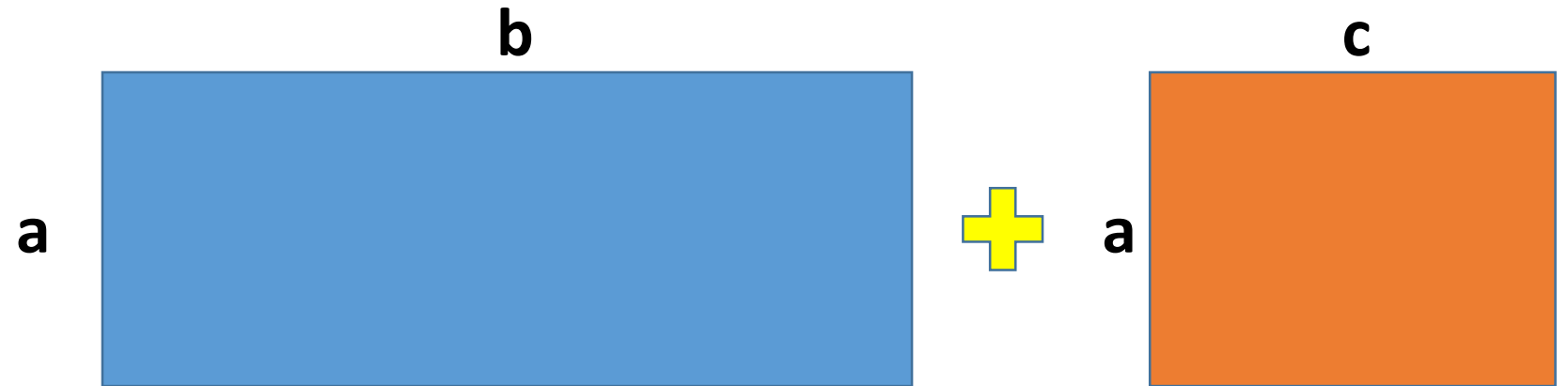
$$a \cdot b \oplus a \cdot c$$

SUMME

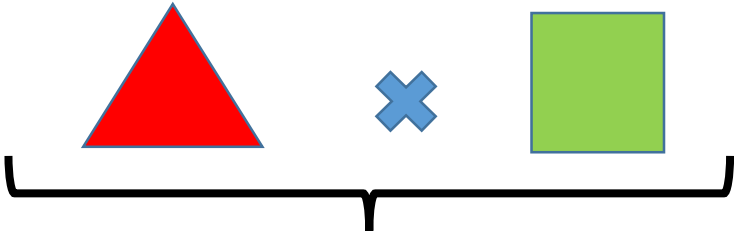
Umwandlung

$$a \cdot (b + c)$$

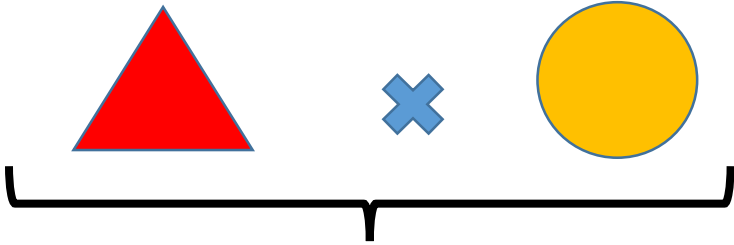
Produkt



**Beispiel 2**

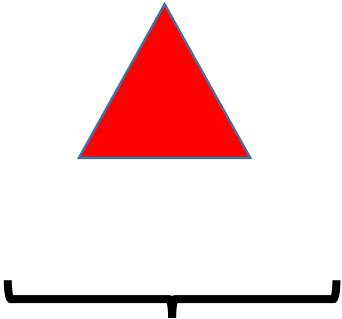
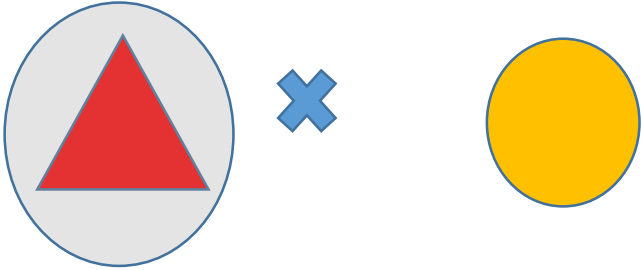
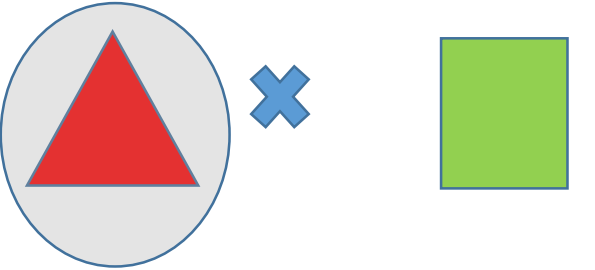
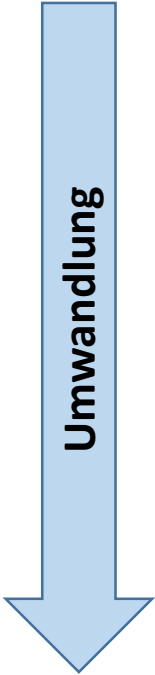


**1. Summand**

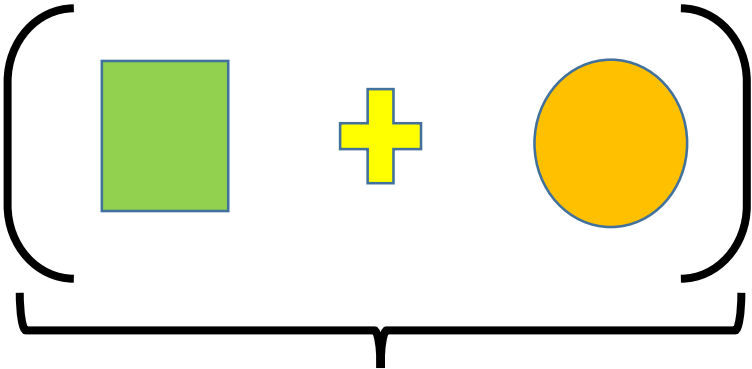


**2. Summand**

**SUMME**



**1. Faktor**



**2. Faktor**

**Produkt**

### Beispiel 3

$$\textcircled{3} \cdot x + \textcircled{3} \cdot y$$

$$= 3 \cdot (x + y)$$

## PRIMFAKTOR- ZERLEGUNG

### Beispiel 4

$$3 \cdot x + 21 \cdot y \quad ?$$

$$= \textcircled{3} \cdot x + \textcircled{3} \cdot 7 \cdot y$$

$$= 3 \cdot (x + 7 \cdot y)$$

### Beispiel 5

$$42 \cdot x^2 - 56 \cdot x \cdot a \cdot b$$

$$= \textcircled{2} \cdot 3 \cdot \textcircled{7} \cdot \textcircled{x} \cdot x - \textcircled{2} \cdot 2 \cdot 2 \cdot \textcircled{7} \cdot \textcircled{x} \cdot a \cdot b$$

$$= 2 \cdot 7 \cdot x \cdot (3 \cdot x - 2 \cdot 2 \cdot a \cdot b)$$

$$= 14 \cdot x \cdot (3 \cdot x - 4 \cdot a \cdot b)$$