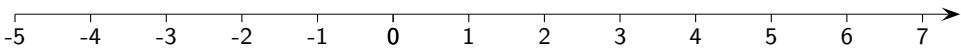


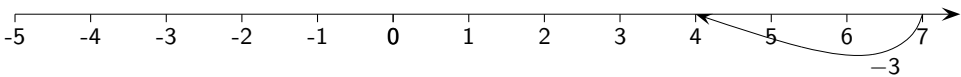
# Negative Zahlen

G.Roofls

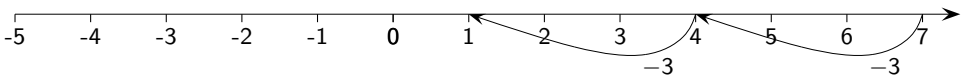
Subtrahiere wiederholt 3, beginne bei 7.



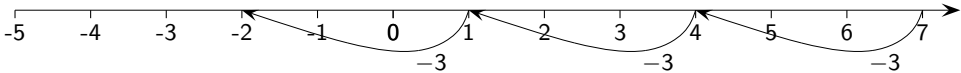
Subtrahiere wiederholt 3, beginne bei 7.



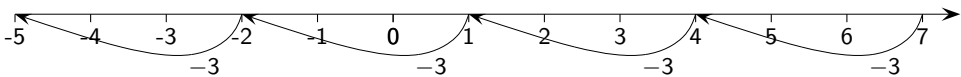
Subtrahiere wiederholt 3, beginne bei 7.



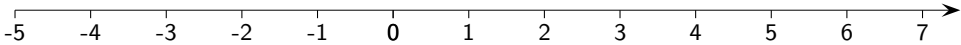
Subtrahiere wiederholt 3, beginne bei 7.



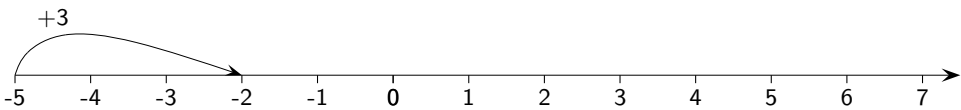
Subtrahiere wiederholt 3, beginne bei 7.



Addiere wiederholt 3, beginne bei  $-5$ .

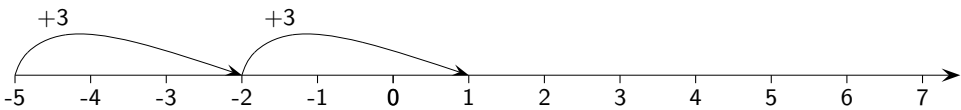


Addiere wiederholt 3, beginne bei  $-5$ .

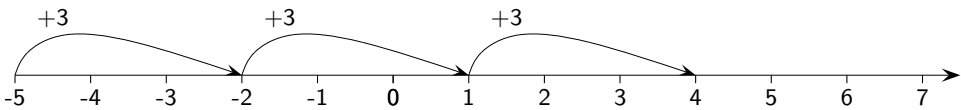




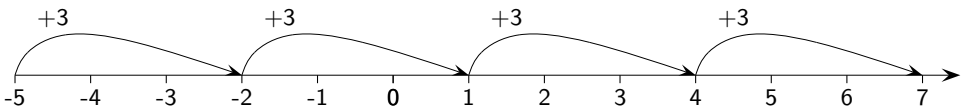
Addiere wiederholt 3, beginne bei  $-5$ .



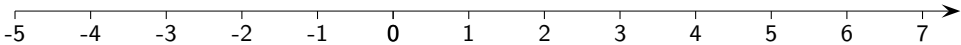
Addiere wiederholt 3, beginne bei  $-5$ .



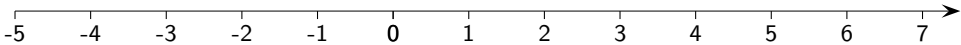
Addiere wiederholt 3, beginne bei  $-5$ .



## Multiplikation mit einer negativen Zahl

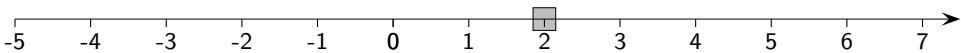


## Multiplikation mit einer negativen Zahl



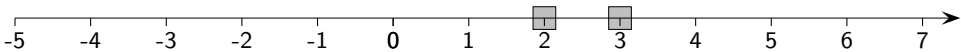
$$2 + 3 =$$

## Multiplikation mit einer negativen Zahl



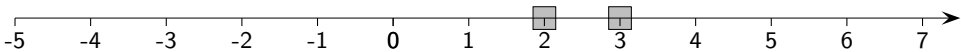
$$2 + 3 =$$

## Multiplikation mit einer negativen Zahl



$$2 + 3 =$$

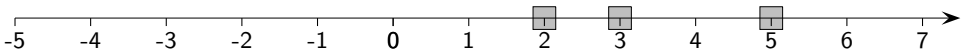
## Multiplikation mit einer negativen Zahl



$$2 + 3 = 5$$

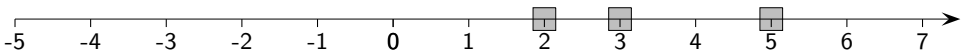


## Multiplikation mit einer negativen Zahl



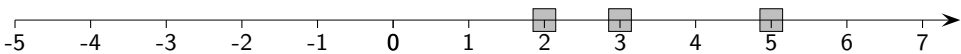
$$2 + 3 = 5$$

## Multiplikation mit einer negativen Zahl



$$2 + 3 = 5 \quad | \cdot (-1)$$

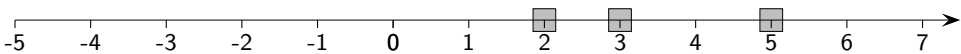
## Multiplikation mit einer negativen Zahl



$$2 + 3 = 5 \quad | \cdot (-1)$$

$$-2$$

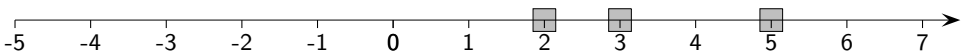
## Multiplikation mit einer negativen Zahl



$$2 + 3 = 5 \quad | \cdot (-1)$$

$$-2 + (-3) =$$

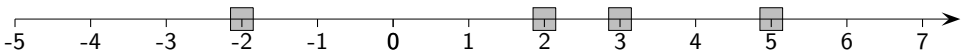
## Multiplikation mit einer negativen Zahl



$$2 + 3 = 5 \quad | \cdot (-1)$$

$$-2 + (-3) = -5$$

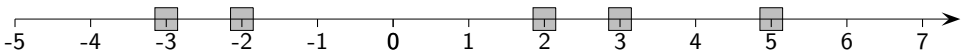
## Multiplikation mit einer negativen Zahl



$$2 + 3 = 5 \quad | \cdot (-1)$$

$$-2 + (-3) = -5$$

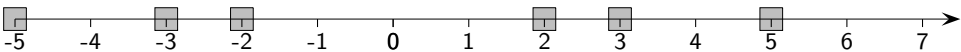
## Multiplikation mit einer negativen Zahl



$$2 + 3 = 5 \quad | \cdot (-1)$$

$$-2 + (-3) = -5$$

## Multiplikation mit einer negativen Zahl

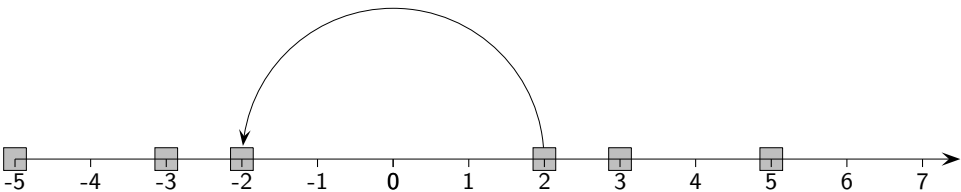


$$2 + 3 = 5 \quad | \cdot (-1)$$

$$-2 + (-3) = -5$$

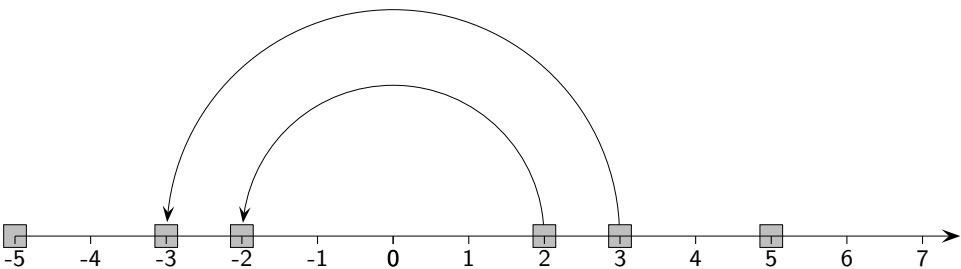


## Multiplikation mit einer negativen Zahl



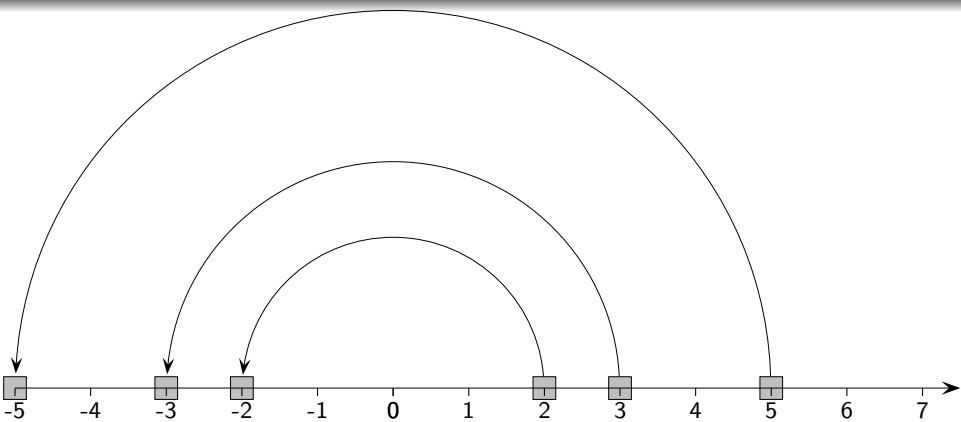
$$\begin{aligned} 2 + 3 &= 5 & | \cdot (-1) \\ -2 + (-3) &= -5 \end{aligned}$$

## Multiplikation mit einer negativen Zahl



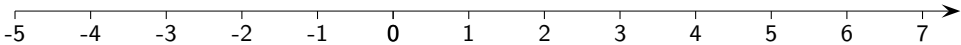
$$2 + 3 = 5 \quad | \cdot (-1)$$
$$-2 + (-3) = -5$$

## Multiplikation mit einer negativen Zahl

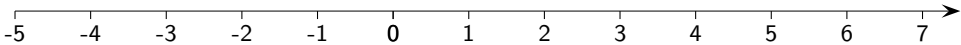


$$\begin{aligned} 2 + 3 &= 5 & | \cdot (-1) \\ -2 + (-3) &= -5 \end{aligned}$$

Jetzt wird's tiefsinnig.

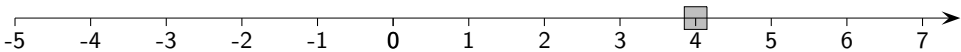


Jetzt wird's tiefsinnig.



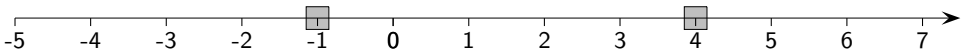
$$4 + (-1) =$$

Jetzt wird's tiefsinnig.



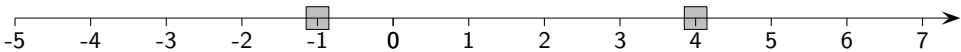
$$4 + (-1) =$$

Jetzt wird's tiefsinnig.



$$4 + (-1) =$$

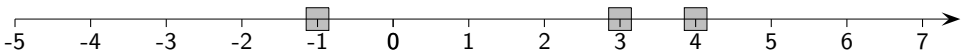
Jetzt wird's tiefsinnig.



$$4 + (-1) = 3$$

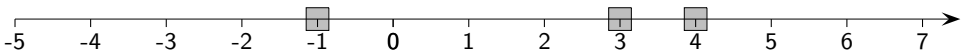


Jetzt wird's tiefsinnig.



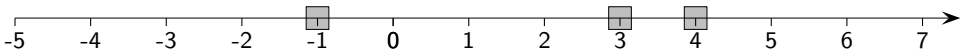
$$4 + (-1) = 3$$

Jetzt wird's tiefsinnig.



$$4 + (-1) = 3 \quad | \cdot (-1)$$

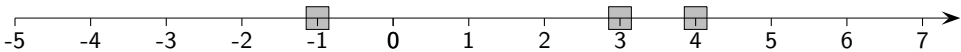
Jetzt wird's tiefsinnig.



$$4 + (-1) = 3 \quad | \cdot (-1)$$

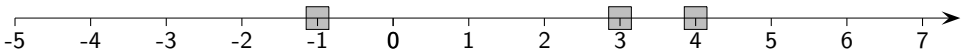
- 4

Jetzt wird's tiefsinnig.



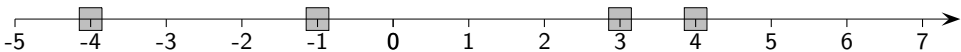
$$4 + (-1) = 3 \quad | \cdot (-1)$$
$$-4 + \underbrace{(-1)(-1)} =$$

Jetzt wird's tiefsinnig.



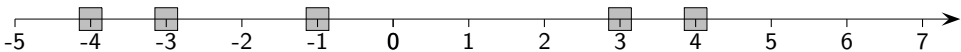
$$4 + (-1) = 3 \quad | \cdot (-1)$$
$$-4 + \underbrace{(-1)(-1)} = -3$$

Jetzt wird's tiefsinnig.



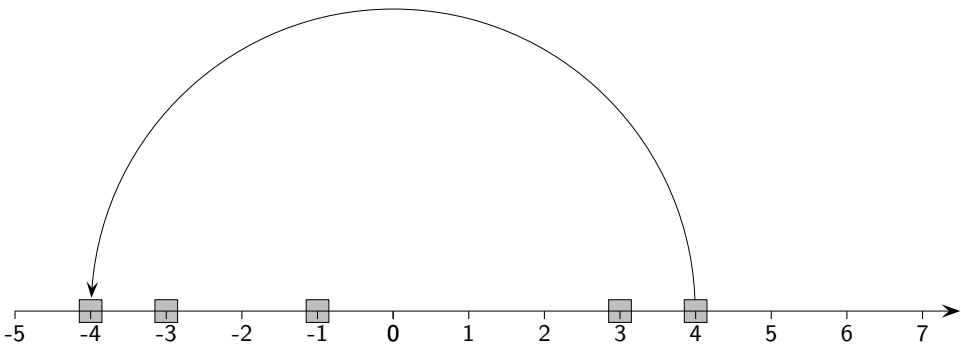
$$4 + (-1) = 3 \quad | \cdot (-1)$$
$$-4 + \underbrace{(-1)(-1)} = -3$$

Jetzt wird's tiefsinnig.



$$4 + (-1) = 3 \quad | \cdot (-1)$$
$$-4 + \underbrace{(-1)(-1)} = -3$$

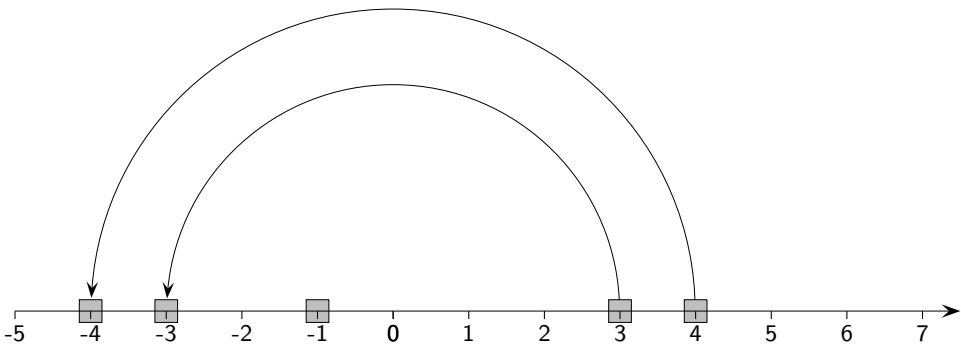
Jetzt wird's tiefsinnig.



$$4 + (-1) = 3 \quad | \cdot (-1)$$
$$-4 + \underbrace{(-1)(-1)} = -3$$

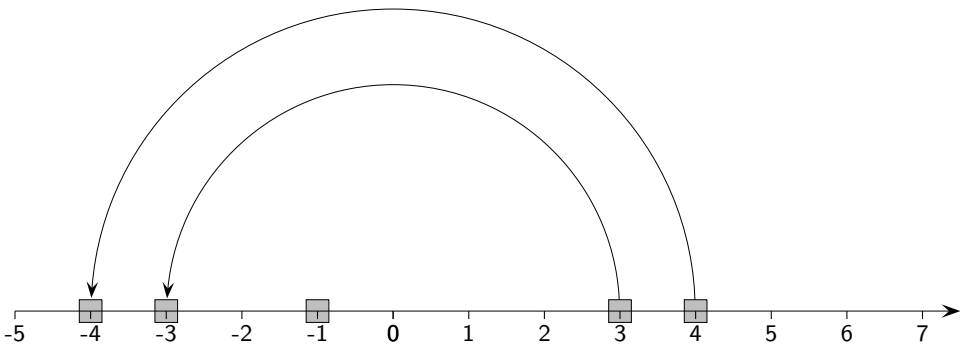


Jetzt wird's tiefsinnig.

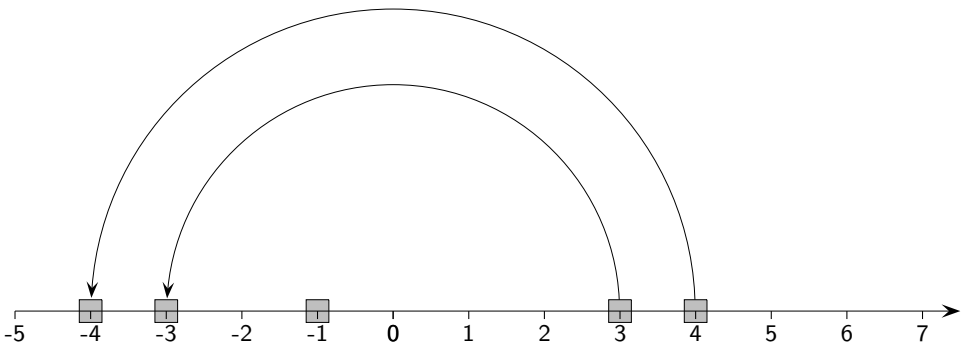


$$4 + (-1) = 3 \quad | \cdot (-1)$$
$$-4 + \underbrace{(-1)(-1)} = -3$$

Jetzt wird's tiefsinnig.

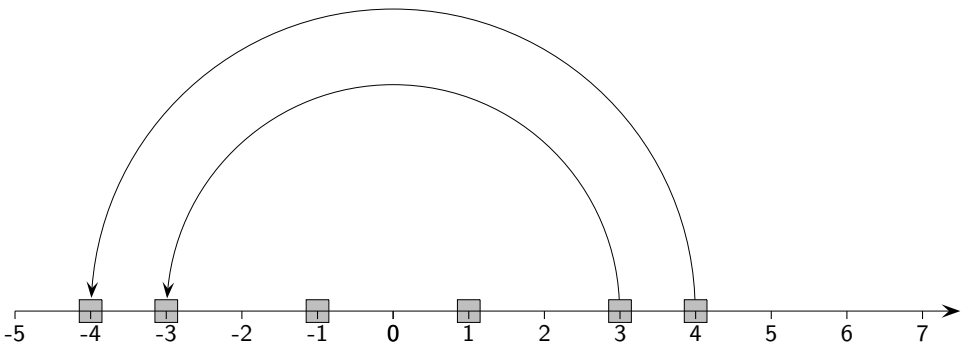


$$4 + (-1) = 3 \quad | \cdot (-1)$$
$$-4 + \underbrace{(-1)(-1)}_1 = -3$$



$$\begin{aligned} 4 + (-1) &= 3 & | \cdot (-1) \\ -4 + \underbrace{(-1)(-1)}_1 &= -3 \end{aligned}$$

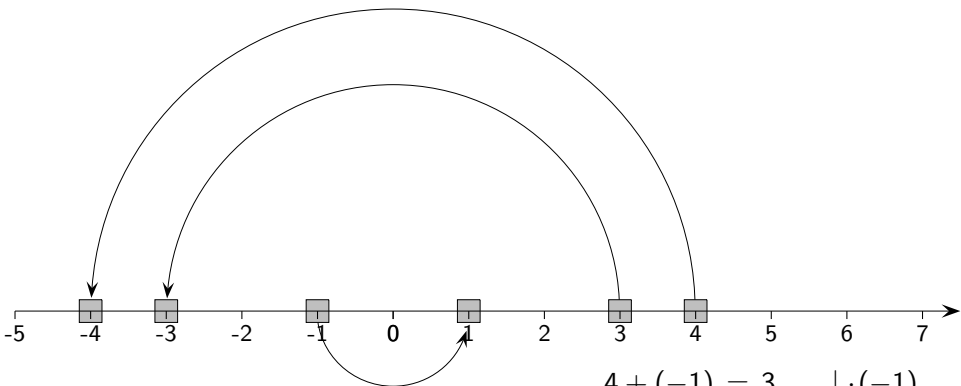
$(-1) \cdot (-1) = 1$  ist die einzige Möglichkeit.



$$\begin{aligned} 4 + (-1) &= 3 & | \cdot (-1) \\ -4 + \underbrace{(-1)(-1)}_1 &= -3 \end{aligned}$$

$(-1) \cdot (-1) = 1$  ist die einzige Möglichkeit.

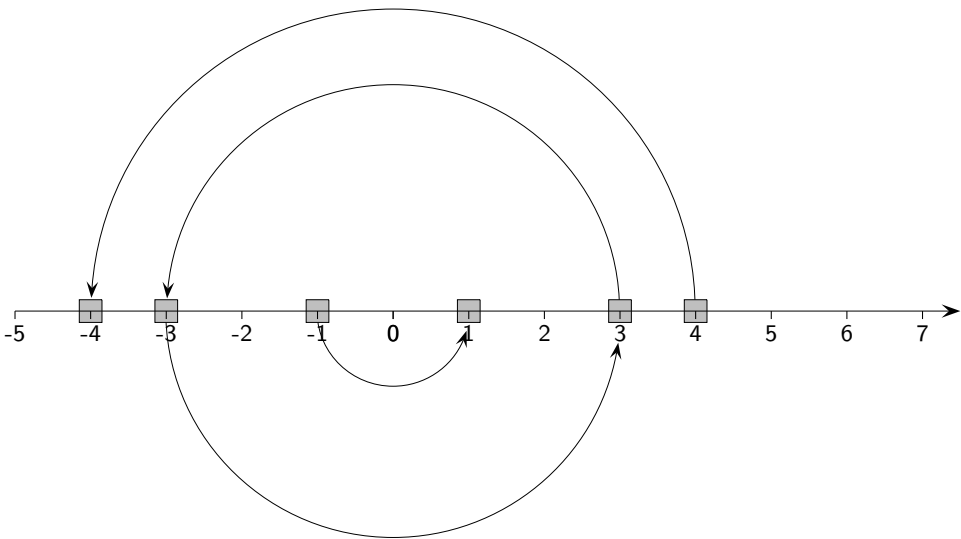
Jetzt wird's tiefsinnig.



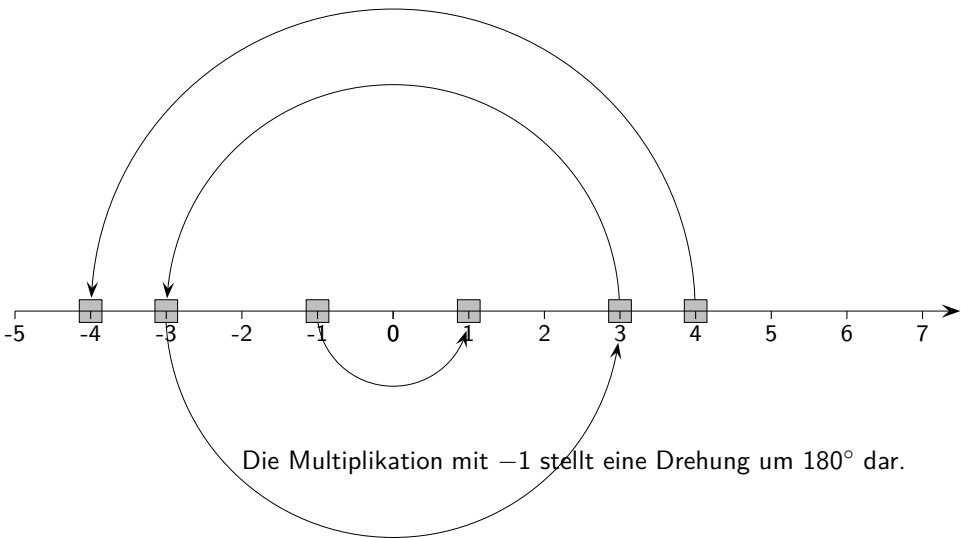
$$4 + (-1) = 3 \quad | \cdot (-1)$$
$$-4 + \underbrace{(-1)(-1)}_1 = -3$$

$(-1) \cdot (-1) = 1$  ist die einzige Möglichkeit.

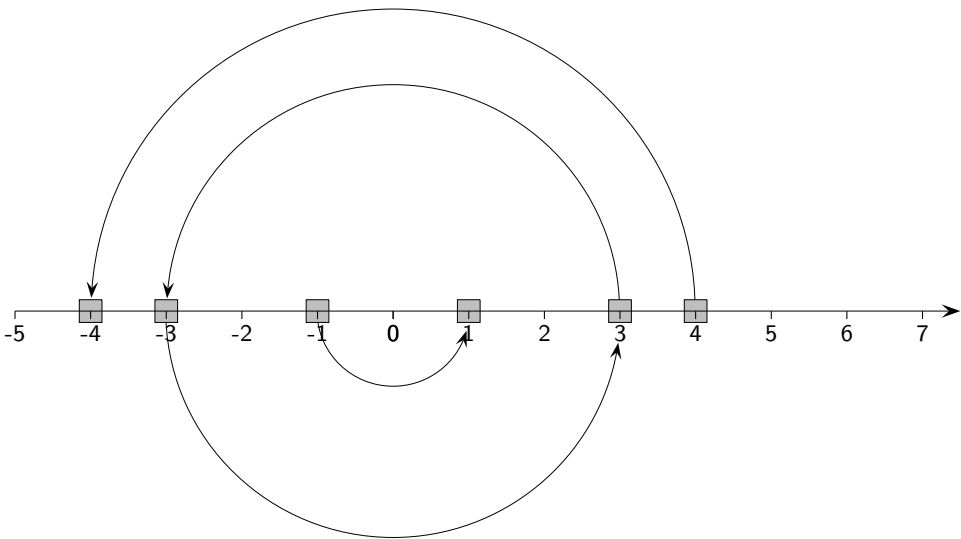
## Multiplikation mit einer negativen Zahl



## Multiplikation mit einer negativen Zahl

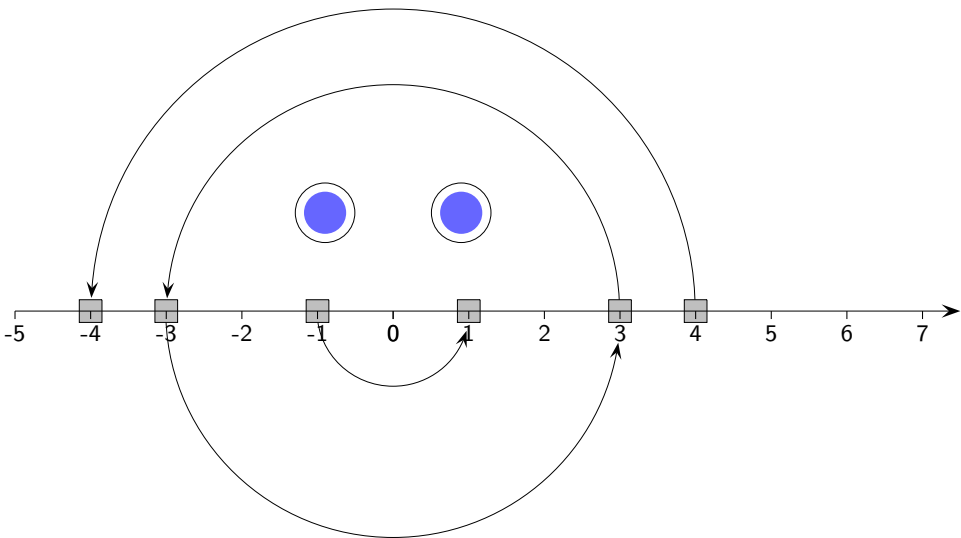


# Multiplikation mit $-1$

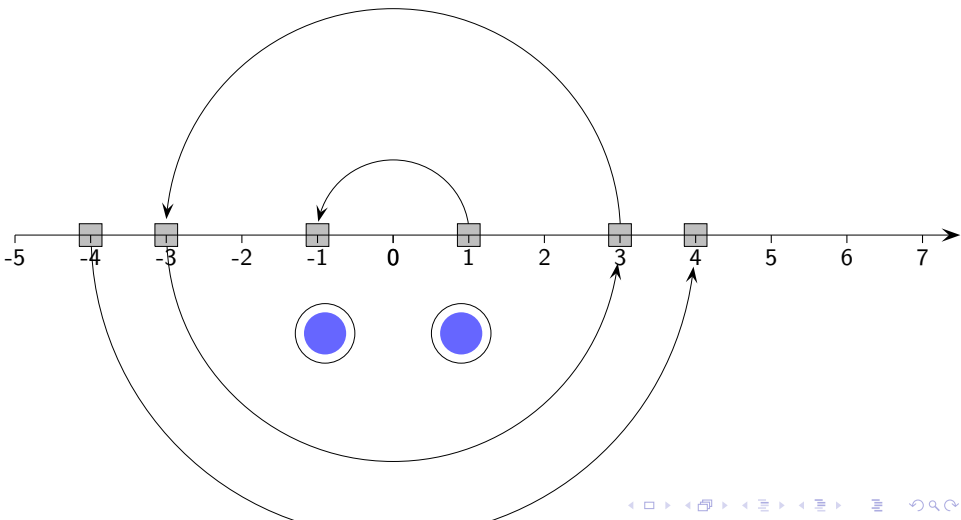




# Multiplikation mit $-1$



# Multiplikation mit $-1$



# Multiplikation mit $-1$

