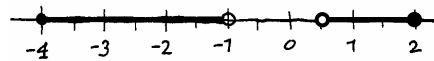
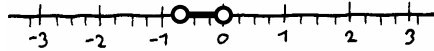
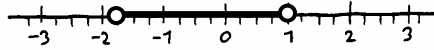
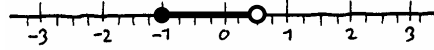
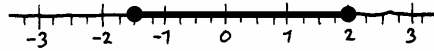
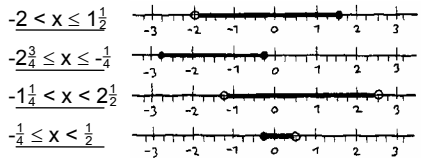


$a - b < 0$; $a \cdot b < 0$; $a > -b$; $b > -a$



$\frac{1}{2} < x \leq 2$

$-\frac{2}{3} + -\frac{5}{3} = -\frac{7}{3}$ $-\frac{2}{3} - -\frac{5}{3} = 1$

$1\frac{2}{7} + 2\frac{5}{7} = 4$ $1\frac{2}{7} - 2\frac{5}{7} = -1\frac{3}{7}$

$4\frac{3}{5} - 4\frac{3}{5} = 9\frac{1}{5}$ $-\frac{4}{5} - -\frac{4}{5} = 0$

$6 \cdot -\frac{2}{3} = -4$ $\frac{1}{2} \cdot -\frac{2}{3} = -\frac{1}{3}$ $-9 \cdot -\frac{2}{3} = 6$

$2\frac{2}{7} \cdot 7 = 16$ $2\frac{2}{7} \cdot 2 = 4\frac{4}{7}$ $2\frac{2}{7} \cdot 3\frac{1}{2} = 8$

$-\frac{10}{4} \cdot 4 = -10$ $\frac{10}{77} \cdot -77 = -10$

$\frac{1}{4} \cdot 4 = 1$ $-\frac{1}{77} \cdot -77 = 1$

$-\frac{3}{4} \cdot 4 = -3$ $\frac{3}{77} \cdot -77 = -3$

$x + -3 + -\frac{1}{7} = x - 3\frac{1}{7}$

$-5 + -x + -4\frac{1}{5} = -x - 9\frac{1}{5}$

$3\frac{3}{8} + x + -1\frac{3}{8} = x + 2$

$\frac{1}{2} + 2 - 2\frac{1}{2} + x = x$

$44 \cdot -\frac{3}{11} \cdot x = -12 \cdot x$

$2\frac{1}{2} \cdot \frac{2}{5} \cdot x = x$

$\frac{3}{8} \cdot x \cdot -2 = -\frac{3}{4} \cdot x$

$\frac{4}{5} \cdot \frac{5}{6} \cdot \frac{6}{7} \cdot x = \frac{4}{7} \cdot x$

$-\frac{1}{3} \cdot (6 \cdot x + 9) = -2 \cdot x - 3$

$12 \cdot (\frac{3}{4} \cdot x - \frac{5}{6}) = 9 \cdot x - 10$

$-5 \cdot (-\frac{2}{5} \cdot x - 2) = -2 \cdot x + 10$

$-\frac{1}{3} \cdot (\frac{3}{7} \cdot x + 6) = -\frac{1}{7} \cdot x - 2$

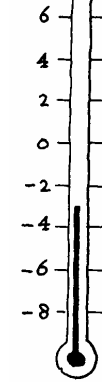
$3 \cdot (3 \cdot x - \frac{2}{3}) = 9 \cdot x - 2$

$-\frac{5}{4} \cdot (4 \cdot x + 6) = -5 \cdot x + -7\frac{1}{2}$

$-\frac{1}{2} \cdot (2 \cdot x - 10) = -x + 5$

$\frac{1}{3} \cdot (6 \cdot x + 6) = 2 \cdot x + 2$

7 De getallenlijn



-7 °C

11 °C

spel nr.	1	2	3	4	5	6	7	8
Arjen	5	4	3	1	3	6	2	2
Victor	2	6	3	4	5	2	4	5
bedrag	3	2b	0	3b	2b	4	2b	3b

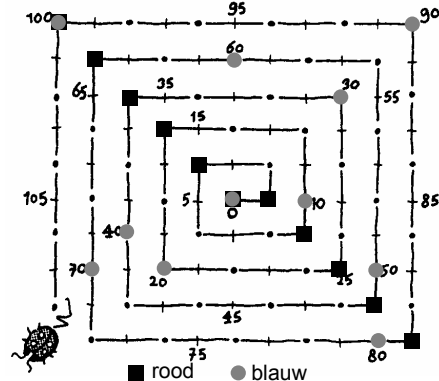
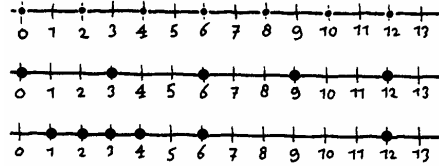
Hij heeft € 5 verloren

€ 70

0

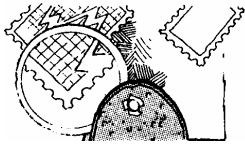
Nee

Nee, hij loopt steeds maar verder.

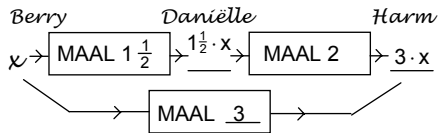


100

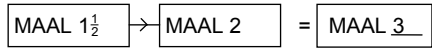
400



Harm heeft 3 keer zoveel postzegels als Berry.

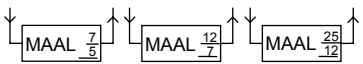


Als je eerst met $1\frac{1}{2}$ vermenigvuldigt en daarna nog eens met 2, kun je net zo goed ineens met 3 vermenigvuldigen.



$2 \cdot 1\frac{1}{2} \cdot x = 3 \cdot x$

1650 1750 1850 1950
500 700 1200 2500

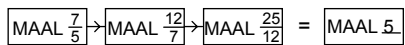


1° manier: door rechtstreeks de aantallen miljoenen mensen in 1650 en 1950 te vergelijken:

$\frac{2500}{500} = 5$

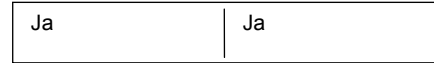
2° manier: door de drie vergrotingen in de perioden 1650-1750, 1750-1850 en 1850-1950 te vermenigvuldigen:

$\frac{7}{5} \cdot \frac{12}{7} \cdot \frac{25}{12} = 5$



$\frac{7}{5} \cdot \frac{12}{7} \cdot \frac{25}{12} \cdot x = 5 \cdot x$

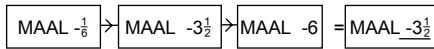
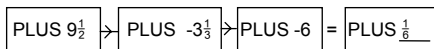
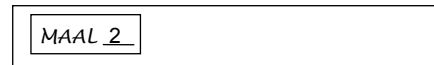
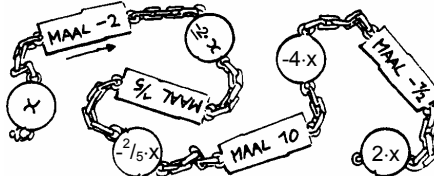
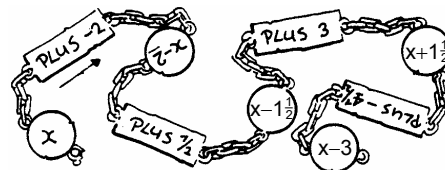
x	$\frac{3}{5} \cdot x$	$\frac{10}{3} \cdot \frac{3}{5} \cdot x$	$2 \cdot x$
10	6	20	20
-4	$-\frac{12}{5}$	-8	-8
-1	$-\frac{3}{5}$	-2	-2
$\frac{1}{5}$	$\frac{3}{25}$	$\frac{2}{5}$	$\frac{2}{5}$



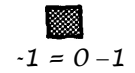
$-2 \cdot -3 \cdot x = 6 \cdot x$ $77 \cdot \frac{1}{77} \cdot x = x$

$-\frac{2}{3} \cdot -3 \cdot x = 2 \cdot x$ $77 \cdot \frac{5}{77} \cdot x = 5 \cdot x$

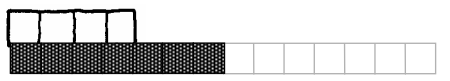
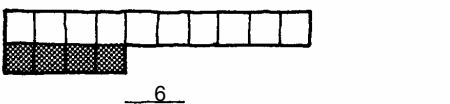
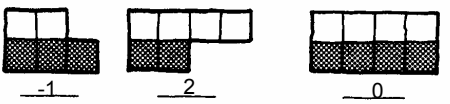
$-2 \cdot 4 \frac{1}{4} \cdot x = -8 \frac{1}{2} \cdot x$ $6 \cdot \frac{7}{12} \cdot x = 3 \frac{1}{2} \cdot x$



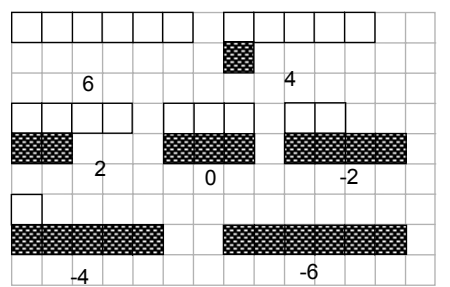
Het aantal negatieve blokjes is altijd één meer dan het aantal positieve blokjes.



Het aantal positieve blokjes is 3 meer dan het aantal negatieve blokjes. Het hoort bij $7 - 4$.



Nee



$3 + -5 = -2$



$-1 + -4 = -5$

$-3 + -5 = -8$ $7 + -7 = 0$

$-3 + 5 = 2$ $-6 + 8 = 2$

$-3 + -3 = -6$ $0 + -9 = -9$

$-7 + 0 = -7$	$-6 + -1 = -7$
$-8 + 1 = -7$	$-5 + -2 = -7$
$-9 + 2 = -7$	$-4 + -3 = -7$
...	...

$-5 + 3 + -2 = -4$

$4 + -8 + 3 = -1$

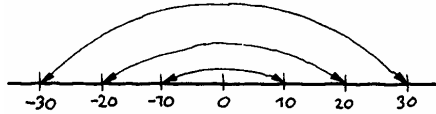
$-2 + -7 + -1 = -10$

$-8 + 12 + -4 = 0$

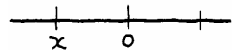


als je begint met	5	6	-6	0
eindig je met	-3	-2	-14	-8

-8



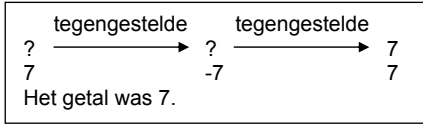
3 | -73



negatief

3

-x is dan positief



$-17 + 17 = 0$

$35 + -35 = 0$

$x + -x = 0$

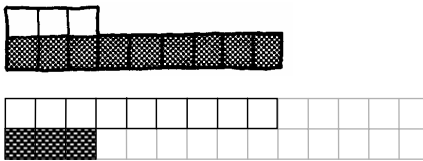
Als twee getallen elkaars tegengestelde zijn, dan is hun som gelijk aan 0

$-(-3) = 3$

$-(-3 + 8) = -5$

$8 + -(-3) = 8 + 3 = 11$

$-5 + 5 = 0$; $-4 + 4 = 0$; $-3 + 3 = 0$;
 $-2 + 2 = 0$; $-1 + 1 = 0$.
 Nu houd je alleen 6 nog over. De uitkomst is dus 6.

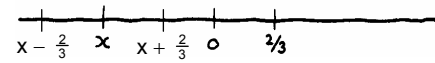


-5 neerleggen

-3 weghalen; dat betekent: 3 negatieve blokken weghalen

kijk wat je over hebt.

$-5 - -3 = -2$



$4\frac{1}{3} + \frac{2}{3} = 5$

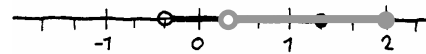
$5\frac{2}{3} - \frac{2}{3} = 5$

$-8\frac{2}{3} + \frac{2}{3} = -8$

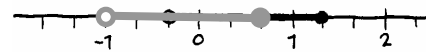
$-7\frac{1}{3} - \frac{2}{3} = -8$

$-\frac{2}{3} + \frac{2}{3} = 0$

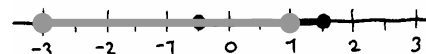
$\frac{2}{3} - \frac{2}{3} = 0$



$\frac{1}{3} < x \leq 2$



$-1 < x \leq \frac{2}{3}$



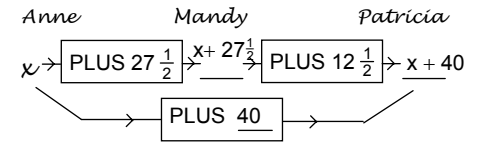
$1\frac{1}{2} \cdot -2 = -3$ | $\frac{1}{2} \cdot -2 = 1$

$-3 \leq x \leq 1$

De lengte wordt 2 keer zo groot



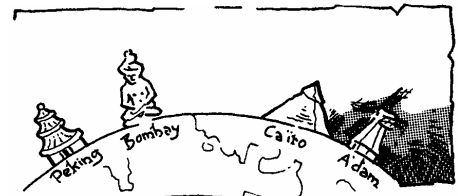
Patricia heeft 40 euro meer dan Anne.



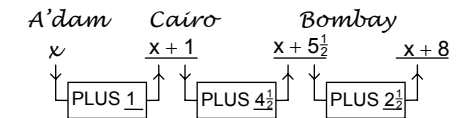
Als je bij een getal eerst $27\frac{1}{2}$ optelt en daarna nog eens $12\frac{1}{2}$ optelt, kun je net zo goed ineens 40 erbij optellen.

$PLUS\ 27\frac{1}{2} \rightarrow PLUS\ 12\frac{1}{2} = PLUS\ 40$

$x + 27\frac{1}{2} + 12\frac{1}{2} = x + 40$



2.30 | 7.00 | 9.30



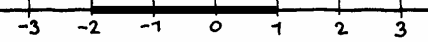
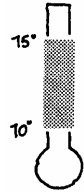
$x + 1 + 4\frac{1}{2} + 2\frac{1}{2} = x + 8$

$x - 4\frac{1}{2} + 14\frac{1}{2} + 24\frac{1}{2} = x + 34\frac{1}{2}$

$-2 + -18 + x + 20 = x$

$-5\frac{4}{7} + x - 5\frac{3}{7} + 9 = x - 2$

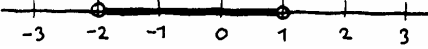
Dat je komkommers moet vervoeren tussen de 10 °C en de 15 °C



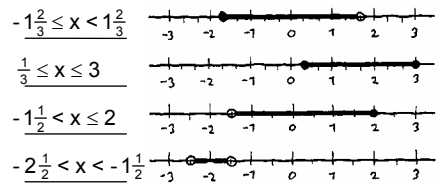
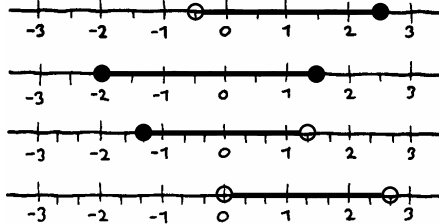
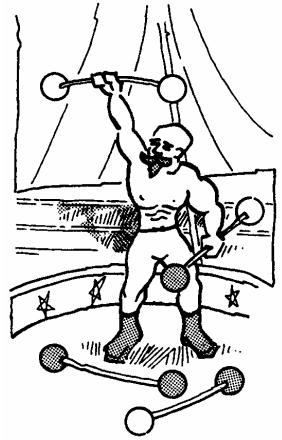
$-\frac{5}{3}, -\frac{4}{3}, -\frac{3}{3}, -\frac{2}{3}, -\frac{1}{3}, \frac{0}{3}, \frac{1}{3}, \frac{2}{3}$

$-\frac{3}{17}, -\frac{3}{2}, \frac{3}{5}$ | oneindig veel

$\frac{8}{9}$ | $-\frac{17}{9}$



~~$-2 > -2$~~ $-\frac{8}{4} \leq -2$ $-\frac{5}{3} \geq -2$ $\frac{1}{7} < -7$



$-2 > -2$ $-\frac{8}{4} \leq -2$ $-\frac{5}{3} \geq -2$ $\frac{1}{7} < -7$

5 neerleggen

-2 weghalen

kijk wat je over hebt.

$5 - -2 = 7$

-4 weghalen

$5 - -4 = 9$

$-7 - -3 = -4$ $-6 - -8 = 2$

$2 - -4 = 6$ $-3 - -3 = 0$

$-6 - -6 = -12$ $3 - -3 = 6$

$0 - -8 = -8$ $0 - -8 = 8$

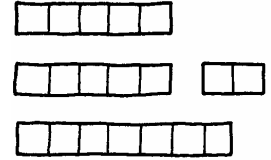
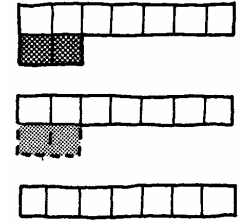
$-1 - -5 = 4$ $-2 - 0 = -2$



$-5 - -5 = 0$ $-5 + -5 = -10$

$-5 - 5 = -10$ $-5 + 5 = 0$

$5 - -5 = 10$ $5 + 5 = 10$



$-5 - -2 = -3$
 $-5 + 2 = -3$
 Het maakt niet uit. De bewering klopt.

$-2 - -2 = 0$
 $-2 + 2 = 0$
 De bewering klopt.

$2 - -5 = 7$ $-3 - -5 = 2$ $0 - -5 = 5$
 $2 + 5 = 7$ $-3 + 5 = 2$ $0 + 5 = 5$
 Zo kun je nog veel meer voorbeelden verzinnen. De bewering klopt.

Klopt ook.

-17 aftrekken komt op hetzelfde neer als 17 optellen.

15 aftrekken komt op hetzelfde neer als -15 optellen.

$3 - 8 = 3 + 8 = 11$

$-2 - 5 = -2 + 5 = 3$

$0 - 8 = 0 + 8 = 8$

$5 - 8 = 5 + -8 = -3$

$-6 - 3 = -6 + -3 = -9$

$0 - 7 = 0 + -7 = -7$

$10 - -20 = 30$	$10 + 20 = 30$	klopt
-----------------	----------------	-------

$a + -3 = a - 3$ $a - -5 = a + 5$

$a + -b = a - b$ $a - -b = a + b$

$0 - -a = a$ $-(-a) = a$

$-7 - 7 - -7 = -7 + -7 + 7 = -7$

$7 - -7 - 7 = 7 + 7 + -7 = 7$

$7 - 7 - 7 = 7 + -7 + -7 = -7$

$-7 - -7 - -7 = -7 + 7 + 7 = 7$

$44 - -56 = 44 + 56 = 100$

$887 - -113 = 887 + 113 = 1000$

$-128 - -128 = -128 + 128 = 0$

Bijvoorbeeld $a = -3$, $b = -5$ en $c = 10$:
 1. $-3 + -5 = -8$; $-8 + 10 = 2$
 2. $-5 + 10 = 5$; $-3 + 5 = 2$
 Beide manieren geven dezelfde uitkomst.

$5 - (-3 - 7) = 5 - (-3 + -7) = 5 - -10 = 5 + 10 = 15$

$3 - (7 - 8) = 3 - (7 + 8) = 3 - 15 = 3 + -15 = -12$

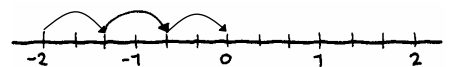
$-7 - (-6 - 2) = -7 - (-6 + 2) = -7 - -4 = -7 + 4 = -3$

Neem bijvoorbeeld $a = 3$, $b = -4$ en $c = 1$.
 $(a - b) - c = (3 - -4) - 1 = 7 - 1 = 6$
 $a - (b - c) = 3 - (-4 - 1) = 3 - -5 = 8$
 klopt niet; de formule is fout!

a	b	a-b	b-a
3	5	-2	2
-4	9	-13	13
6	-3	9	-9
-2	-5	3	-3

$a - b$ en $b - a$ zijn elkaars tegengestelde

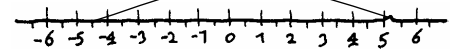
$(1+ -2) + (3+ -4) + \dots + (97+ -98) + (99+ -100)$
 $= -1 + -1 + \dots + -1 + -1$
 $= 50 \cdot -1 = -50$



$-1\frac{1}{3} + \frac{2}{3} = -\frac{2}{3}$ $-\frac{2}{3} + \frac{2}{3} = 0$ $-2 + \frac{2}{3} = -1\frac{1}{3}$



$1 - 1\frac{1}{3} = -\frac{1}{3}$ $-\frac{2}{3} - 1\frac{1}{3} = -2$ $0 - 1\frac{1}{3} = -1\frac{1}{3}$



$-4\frac{1}{2}$

$-2\frac{1}{3} + -1\frac{2}{3} = -4$ $1\frac{1}{2} + -2\frac{1}{2} = -1$

$-\frac{2}{5} + 2\frac{1}{5} = 1\frac{4}{5}$ $59\frac{1}{7} + 60 = 119\frac{1}{7}$

$-2\frac{1}{4} + 5\frac{1}{4} = 3$ $-6\frac{1}{6} + -3\frac{5}{6} = -10$

$5\frac{5}{8} + 94\frac{3}{8} = 100$ $-5\frac{2}{13} + 5\frac{2}{13} = 0$

Als je twee positieve getallen met elkaar vermenigvuldigt, is de uitkomst positief

Als je een negatief en een positief getal met elkaar vermenigvuldigt, is de uitkomst negatief

Als je twee negatieve getallen met elkaar vermenigvuldigt, is de uitkomst positief

$8 \cdot -\frac{3}{8} = -3$ $-7 \cdot -\frac{4}{7} = 4$ $-11 \cdot \frac{7}{11} = -7$

$-\frac{3}{4} \cdot \frac{1}{3} = -\frac{1}{4}$ $\frac{2}{5} \cdot \frac{1}{6} = \frac{1}{15}$ $-\frac{1}{2} \cdot -\frac{4}{9} = \frac{2}{9}$

$\frac{2}{7} \cdot 7 = 2$ $-\frac{2}{9} \cdot 9 = -2$ $-4\frac{3}{8} \cdot 0 = 0$

$\frac{3}{7} \cdot 7 = 3$ $-\frac{5}{9} \cdot 9 = -5$ $x \cdot 0 = 0$

$\frac{4}{7} \cdot 7 = 4$ $-\frac{8}{9} \cdot 9 = -8$ $-4\frac{3}{8} \cdot 1 = -4\frac{3}{8}$

$\frac{x}{7} \cdot 7 = x$ $-\frac{x}{9} \cdot 9 = -x$ $x \cdot 1 = x$

$-3 : 8 = \underline{\hspace{1cm}}$ $3 : -8 = \underline{\hspace{1cm}}$ $-3 : -8 = \underline{\hspace{1cm}}$

$10 : 2 = 5$, want $2 \cdot 5 = 10$

$-10 : 2 = -5$, want $2 \cdot -5 = -10$

$10 : -2 = -5$, want $-2 \cdot -5 = 10$

$-10 : -2 = 5$, want $-2 \cdot 5 = -10$

$21 : -7 = -3$, want $-7 \cdot -3 = 21$

$-72 : -9 = 8$, want $-9 \cdot 8 = -72$

$-48 : 12 = -4$, want $12 \cdot -4 = -48$

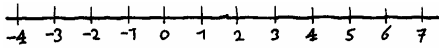
$3 : 8 = \frac{3}{8}$, want $8 \cdot \frac{3}{8} = 3$

$-3 : 8 = -\frac{3}{8}$, want $8 \cdot -\frac{3}{8} = -3$

$3 : -8 = -\frac{3}{8}$, want $-8 \cdot -\frac{3}{8} = 3$

$-3 : -8 = \frac{3}{8}$, want $-8 \cdot \frac{3}{8} = -3$

a	b	$\frac{a}{b}$	a:b	$\frac{a+b}{b}$
6	4	$\frac{6}{4} = 1\frac{1}{2}$	10	$\frac{10}{4} = 2\frac{1}{2}$
-6	4	$-\frac{6}{4} = -1\frac{1}{2}$	-2	$-\frac{2}{4} = -\frac{1}{2}$
-4	12	$-\frac{1}{3}$	8	$\frac{8}{12} = \frac{2}{3}$
21	18	$\frac{7}{6}$	39	$\frac{39}{18} = 2\frac{1}{6}$



tussen 5 en 6 | tussen -2 en -3

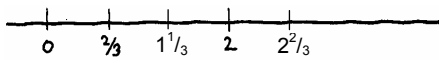


-4	-3	-2	-1	0	1	2	3	4
$-3\frac{1}{2}$	$-2\frac{1}{2}$	$-1\frac{1}{2}$	$-\frac{1}{2}$	$\frac{1}{2}$	$1\frac{1}{2}$	$2\frac{1}{2}$	$3\frac{1}{2}$	$4\frac{1}{2}$
$-3\frac{2}{3}$	$-2\frac{2}{3}$	$-1\frac{2}{3}$	$-\frac{2}{3}$	$\frac{1}{3}$	$1\frac{2}{3}$	$2\frac{2}{3}$	$3\frac{2}{3}$	$4\frac{2}{3}$
$-3\frac{3}{4}$	$-2\frac{3}{4}$	$-1\frac{3}{4}$	$-\frac{3}{4}$	$\frac{1}{4}$	$1\frac{3}{4}$	$2\frac{3}{4}$	$3\frac{3}{4}$	$4\frac{3}{4}$
$-3\frac{3}{4}$	$-2\frac{3}{4}$	$-1\frac{3}{4}$	$-\frac{3}{4}$	$\frac{1}{4}$	$1\frac{3}{4}$	$2\frac{3}{4}$	$3\frac{3}{4}$	$4\frac{3}{4}$
$-3\frac{3}{4}$	$-2\frac{3}{4}$	$-1\frac{3}{4}$	$-\frac{3}{4}$	$\frac{3}{4}$	$1\frac{3}{4}$	$2\frac{3}{4}$	$3\frac{3}{4}$	$4\frac{3}{4}$
$-3\frac{1}{5}$	$-2\frac{1}{5}$	$-1\frac{1}{5}$	$-\frac{1}{5}$	$\frac{1}{5}$	$1\frac{1}{5}$	$2\frac{1}{5}$	$3\frac{1}{5}$	$4\frac{1}{5}$
$-3\frac{2}{5}$	$-2\frac{2}{5}$	$-1\frac{2}{5}$	$-\frac{2}{5}$	$\frac{2}{5}$	$1\frac{2}{5}$	$2\frac{2}{5}$	$3\frac{2}{5}$	$4\frac{2}{5}$

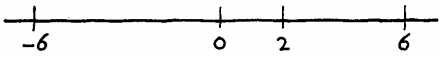
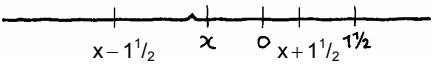
Die is hetzelfde als de tweede rij.

$\frac{-13}{-24}$ $\frac{124}{3}$ 0 $\frac{333}{111}$ $\frac{333}{110}$
 $-\frac{3}{24}$ $-\frac{24}{3}$ $\frac{4}{23}$ $-\frac{23}{4}$ $-\frac{4}{2}$

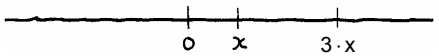
~~Elk rationaal getal is ook een geheel getal.~~
 Elk geheel getal is ook een rationaal getal.
 Elk natuurlijk getal is ook een geheel getal.
~~Elk geheel getal is ook een natuurlijk getal.~~
~~0 is geen rationaal getal.~~



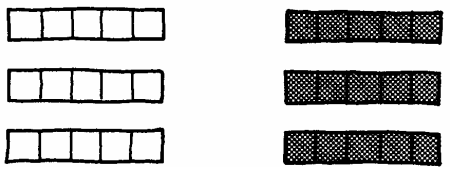
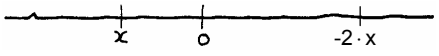
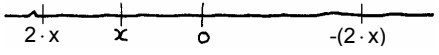
1 cm | 1 cm



De afstand van 6 tot 0 is 3 keer zo groot als de afstand van 2 tot 0.



De afstand van 3 · x tot 0 is 3 keer zo groot als de afstand van x tot 0.



$3 \cdot 5 = 15$ $3 \cdot -5 = -15$

- $1 \cdot -5 = -5$
 - $2 \cdot -5 = -10$
 - $3 \cdot -5 = -15$
 - $4 \cdot -5 = -20$
 - $5 \cdot -5 = -25$
- $1 \cdot -7 = -7$
 - $2 \cdot -7 = -14$
 - $3 \cdot -7 = -21$
 - $4 \cdot -7 = -28$
 - $5 \cdot -7 = -35$

$\left. \begin{array}{l} \text{min } 5 \\ \text{min } 5 \\ \text{min } 5 \\ \text{min } 5 \end{array} \right\} \begin{array}{l} 1 \cdot 5 = 5 \\ 2 \cdot 5 = 10 \\ 3 \cdot 5 = 15 \\ 4 \cdot 5 = 20 \\ 5 \cdot 5 = 25 \end{array} \rightarrow \text{plus } 5$

5 - 5 = 0 | klopt

- $-5 \cdot 5 = -25$
 - $-4 \cdot 5 = -20 \rightarrow \text{min } 5$
 - $-3 \cdot 5 = -15 \rightarrow \text{min } 5$
 - $-2 \cdot 5 = -10 \rightarrow \text{min } 5$
 - $-1 \cdot 5 = -5 \rightarrow \text{min } 5$
 - $0 \cdot 5 = 0 \rightarrow \text{min } 5$
 - $1 \cdot 5 = 5 \rightarrow \text{min } 5$
- $-5 \cdot -7 = 35$
 - $-4 \cdot -7 = 28 \rightarrow$
 - $-3 \cdot -7 = 21 \rightarrow$
 - $-2 \cdot -7 = 14 \rightarrow$
 - $-1 \cdot -7 = 7 \rightarrow$
 - $0 \cdot -7 = 0 \rightarrow$
 - $1 \cdot -7 = -7 \rightarrow$
- $3 \cdot -8 = -24$
 - $-3 \cdot -6 = 18$
 - $-7 \cdot 1 = -7$
 - $7 \cdot -7 = -49$
 - $-8 \cdot -9 = 72$
- $-2 \cdot 4 = -8$
 - $5 \cdot -9 = -45$
 - $-5 \cdot -5 = 25$
 - $-9 \cdot 2 = -18$
 - $-5 \cdot 0 = 0$

Als je twee positieve getallen vermenigvuldigt is de uitkomst positief.
 Als je een positief getal vermenigvuldigt met een negatief getal is de uitkomst negatief.
 als je een negatief getal vermenigvuldigt met een positief getal is de uitkomst negatief.
 Als je twee negatieve getallen vermenigvuldigt is de uitkomst positief.

Bijvoorbeeld a = -2, b = 10 en c = -4
 1. $-2 \cdot 10 = -20$; $-20 \cdot -4 = 80$
 2. $10 \cdot -4 = -40$; $-2 \cdot -40 = 80$
 Beide manieren geven dezelfde uitkomst.

$-3 \cdot 5 = -15$

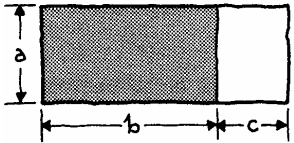
a	b	a·b	-a·b	a·-b	-b·-a
5	8	40	-40	-40	40
-3	7	-21	21	21	-21
4	-2	-8	8	8	-8
-6	-4	24	-24	-24	24

$a \cdot b = -a \cdot -b$ $a \cdot -b = -a \cdot b$
 $a \cdot -b = -a \cdot b$ $a \cdot b = -a \cdot -b$

$a \cdot -b$ en $a \cdot b$ zijn elkaars tegengestelde

$-32 \cdot -5 = \underline{160}$ $0 \cdot -79 = \underline{0}$
 $12 \cdot -15 = \underline{-180}$ $-54 \cdot -10 = \underline{540}$
 $-75 \cdot -4 = \underline{300}$ $-37 \cdot -1 = \underline{37}$
 $24 \cdot 25 = \underline{600}$ $70 \cdot -3 = \underline{-210}$

$-3 \cdot -a = \underline{3 \cdot a}$
 $-1 \cdot a = \underline{-a}$
 $-b \cdot -b = \underline{b^2}$
 $-3 \cdot a \cdot -1 = \underline{3 \cdot a}$

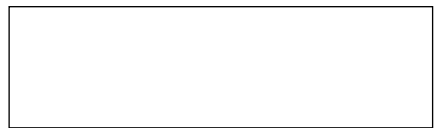


1° manier: lengte x breedte
 $a \cdot (b+c)$

 2° manier: grijze deel + witte deel
 $a \cdot b + a \cdot c$

$\underline{a \cdot (b+c) = a \cdot b + a \cdot c}$

$a \cdot (b+c) = -3 \cdot (5+8) = -3 \cdot -3 = 9$
 $a \cdot b + a \cdot c = -3 \cdot 5 + -3 \cdot -8 = -15 + 24 = 9$
 klopt



$-13 \cdot -25 + -13 \cdot -75 = -13 \cdot -100 = \underline{1300}$
 $-37 \cdot 58 + -37 \cdot -58 = -37 \cdot 0 = \underline{0}$
 $125 \cdot -23 + 75 \cdot -23 = 200 \cdot -23 = \underline{-4600}$
 $-26 \cdot -18 + 126 \cdot -18 = 100 \cdot -18 = \underline{-1800}$
 $50 \cdot 32 + 50 \cdot -62 = 50 \cdot -30 = \underline{-1500}$

$-1 \cdot 9 + -2 \cdot 9 + -3 \cdot 9 + -4 \cdot 9 = -10 \cdot 9 = \underline{-90}$
 $-1 \cdot -7 + -2 \cdot -7 + -3 \cdot -7 + -4 \cdot -7 = -10 \cdot -7 = \underline{70}$
 $-1 \cdot x + -2 \cdot x + -3 \cdot x + -4 \cdot x = -10 \cdot x$

$-3 \cdot (x+5) = -3 \cdot x + -3 \cdot 5 = -3 \cdot x + 15$
 $-6 \cdot (4+x) = -6 \cdot 4 + -6 \cdot x = -24 + -6 \cdot x$
 $-5 \cdot (-3+y) = -5 \cdot -3 + -5 \cdot y = 15 + -5 \cdot y$
 $x \cdot (-1+y) = x \cdot -1 + x \cdot y = -x + x \cdot y$
 $x \cdot (7+-7) = x \cdot 0 = 0$

$x + -x = 0$	
$x - 0 = x$	$0 - x = -x$
$1 \cdot x = x$	$0 \cdot x = x$
$-1 \cdot x = -x$	$-1 \cdot x = x$

