

Blok 1

1-1 Getallen

- 1a Het cijfer 7 is hier 700 waard.
b Het cijfer 4 is hier 4000 waard.
c Het cijfer 9 is hier 90 000 waard.
d Het cijfer 1 is hier 100 000 waard.

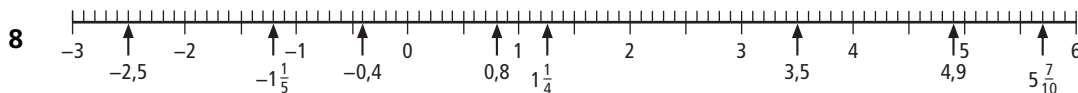
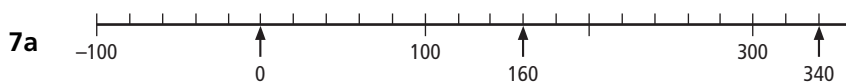
- 2a 200 0 31
b 1 050 304

- 3a 61 miljard = 61 000 000 000
b 1,6 miljard = 1 600 000 000

- 4a 9 009 = negenduizend en negen
b 90 909 = negentigduizend negenhonderd en negen
c 9 009 009 = negen miljoen negenduizend en negen
d 90 009 000 009 = negentig miljard negen miljoen en negen

- 5a Niet goed, want 2,4 miljoen is 2 400 000.
b Deze beschrijving is juist.

- 6 $190\,000 \times 100 = 19\,000\,000$, dus *bijna 100 keer*.



- 9a 0,35 ligt precies tussen 0,2 en 0,5.
b -35 ligt precies tussen -10 en -60.
c $7\frac{3}{8}$ ligt precies tussen $7\frac{1}{4}(=7\frac{2}{8})$ en $7\frac{1}{2}(=7\frac{4}{8})$.
d 101 ligt precies tussen 98,4 en 103,6.

- 10a $-2080 > -2090$ c $-3\frac{1}{7} < -3\frac{1}{13}$
b $10,09 < 10,11$ d $-203\frac{1}{3} > -203,5$

1-2 Gehele getallen optellen en aftrekken

1a $927 = 900 + 20 + 7$

b $605 = 600 + 5$

c $1207 = 1000 + 200 + 7$

d $3078 = 3000 + 70 + 8$

2a $127 + 5 = 132$

b $104 + 19 = 123$

c $17 + 52 = 69$

d $504 + 96 = 600$

e $208 + 32 = 240$

f $112 + 27 = 139$

3a $103 - 4 = 99$

b $1003 - 4 = 999$

c $205 - 273 = -68$

d $105 - 207 = -102$

e $906 - 12 = 894$

f $9006 - 12 = 8994$

4a $41 - 24 = 17$

b $-75 + 29 = -46$

c $112 + 56 = 168$

d $106 - 9 = 97$

e $-560 + 34 = -526$

f $136 - 78 = 58$

5	$\begin{array}{r} 11 \\ 543 \\ \hline 499 + \\ 1042 \end{array}$	$\begin{array}{r} 11 \\ 131 \\ \hline 566 + \\ 697 \end{array}$	$\begin{array}{r} 11 \\ 543 \\ \hline 398 + \\ 941 \end{array}$	$\begin{array}{r} 1 \\ 727 \\ \hline 369 + \\ 1096 \end{array}$	$\begin{array}{r} 11 \\ 438 \\ \hline 695 + \\ 1133 \end{array}$
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6
$$\begin{array}{r} 312 \\ 642 \\ \hline 316 - \\ 326 \end{array}$$

7	$\begin{array}{r} 315 \\ 34\cancel{8} \\ \hline 127 - \\ 218 \end{array}$	$\begin{array}{r} 418 \\ 7\cancel{8}8 \\ \hline 229 - \\ 529 \end{array}$	$\begin{array}{r} 115 \\ 92\cancel{8} \\ \hline 317 - \\ 608 \end{array}$	$\begin{array}{r} 716 \\ 58\cancel{6} \\ \hline 459 - \\ 127 \end{array}$	$\begin{array}{r} 215 \\ 9\cancel{8}8 \\ \hline 217 - \\ 718 \end{array}$
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8a $313 + 47 = 360$

b $22 + 89 + 78 = 100 + 89 = 189$

c $503 + (67 - 15) = 503 + 52 = 555$

d $1086 + 1018 = 2104$

e $437 - (51 - 4) = 437 - 47 = 390$

f $760 - 129 - 131 = 760 - 260 = 500$

g $503 - 67 = 436$

h $313 - 589 = -276$

9 $444 - 75 = 369$

Ze moet nog € 369,- betalen.

10 $-24 + \text{kleedgeld} = 41$

Het kleedgeld is dus $24 + 41 = 65$ euro.

1-3 Gehele getallen vermenigvuldigen

- 1a $6 \times 7 = 42$ d $3 \times 9 = 27$ g $9 \times 3 \times 2 = 54$
 b $9 \times 6 = 54$ e $8 \times 3 = 24$ h $5 \times 0 \times 8 = 0$
 c $5 \times 4 = 20$ f $9 \times 8 = 72$ i $7 \times 9 \times 0 = 0$

2a 17×35

$\times$	30	5
10	300	50
7	210	35

36×42

$\times$	40	2
30	1200	60
6	240	12

97×54

$\times$	50	4
90	4500	360
7	350	28

- b $17 \times 35 = 10 \times 30 + 10 \times 5 + 7 \times 30 + 7 \times 5 = 300 + 50 + 210 + 35 = 595$
 $36 \times 42 = 30 \times 40 + 30 \times 2 + 6 \times 40 + 6 \times 2 = 1200 + 60 + 240 + 12 = 1512$
 $97 \times 54 = 90 \times 50 + 90 \times 4 + 7 \times 50 + 7 \times 4 = 4500 + 360 + 350 + 28 = 5238$

3 Aanpak 1

$$\begin{array}{r} 53 \\ \underline{17} \times \\ 10 \times 50 = 500 \\ 10 \times 3 = 30 \\ 7 \times 50 = 350 \\ 7 \times 3 = \underline{21} + \\ 901 \end{array}$$

Aanpak 1

$$\begin{array}{r} 59 \\ \underline{65} \times \\ 60 \times 50 = 3000 \\ 60 \times 9 = 540 \\ 5 \times 50 = 250 \\ 5 \times 9 = \underline{45} + \\ 3835 \end{array}$$

Aanpak 1

$$\begin{array}{r} 66 \\ \underline{54} \times \\ 50 \times 60 = 3000 \\ 50 \times 6 = 300 \\ 4 \times 60 = 240 \\ 4 \times 6 = \underline{24} + \\ 3564 \end{array}$$

Aanpak 2

$$\begin{array}{r} 53 \\ \underline{17} \times \\ 371 \\ \underline{530} + \\ 901 \end{array}$$

Aanpak 2

$$\begin{array}{r} 59 \\ \underline{65} \times \\ 295 \\ \underline{3540} + \\ 3835 \end{array}$$

Aanpak 2

$$\begin{array}{r} 66 \\ \underline{54} \times \\ 264 \\ \underline{3300} + \\ 3564 \end{array}$$

- 4 $\begin{array}{r} 38 \\ \underline{65} \times \\ 190 \\ \underline{2280} + \\ 2470 \end{array}$ $\begin{array}{r} 24 \\ \underline{49} \times \\ 216 \\ \underline{960} + \\ 1176 \end{array}$ $\begin{array}{r} 16 \\ \underline{77} \times \\ 112 \\ \underline{1120} + \\ 1232 \end{array}$

- 5a $4 \times 225 = 900$ c $89 \times 21 = 1869$ e $70 \times 176 = 12\,320$
 b $60 \times 35 = 2100$ d $75 \times 27 = 2025$ f $200 \times 300 = 60\,000$

- 6a $3 \times -4 = -12$ d $-2 \times 9 = -18$ g $9 \times -1 = -9$
 b $5 \times 7 = 35$ e $-8 \times 0 = 0$ h $-2 \times -2 = 4$
 c $-5 \times -3 = 15$ f $7 \times -3 = -21$ i $6 \times 7 = 42$
- 7a $-8 \times 15 = -120$ d $20 \times -750 = -15\,000$ g $2 \times 16 \times 50 = 1600$
 b $-70 \times -36 = 2520$ e $12 + 3 \times 7 = 33$ h $-41 + 7 \times -16 = -153$
 c $61 \times -53 = -3233$ f $-2 + 6 \times -8 = -50$ i $9 \times 16 + 16 = 160$

- 8 Patrick heeft $15 + 50 = 65$ euro.
 Hij betaalt $4 \times 7 = 28$ euro voor de kaartjes en $4 \times 5 = 20$ euro voor de popcorn en frisdank, in totaal $28 + 20 = 48$ euro.
 Patrick houdt $65 - 48 = 17$ euro over.

- 9 $5 \times 55 = 275$
 $8 \times 45 = 360$
 $6 \times 35 = 210$
 Ze betaalt $275 + 360 + 210 = 845$ ct ofwel 8,45 euro.
 Ze krijgt $20 - 8,45 = 11,55$ euro terug.

1-4 Breuken optellen en aftrekken

- 1a Er zijn 6 delen van de cirkel gekleurd.

- b Er is $\frac{6}{8}$ deel gekleurd.
 c $\frac{6}{8} = \frac{3}{4}$

- 2a $\frac{4}{18} = \frac{2}{9}$
 b $\frac{14}{21} = \frac{2}{3}$
 c $\frac{15}{65} = \frac{3}{13}$
 d $\frac{12}{60} = \frac{1}{5}$

- 3a $\frac{3}{10} + \frac{1}{10} = \frac{4}{10} = \frac{2}{5}$
 b $\frac{2}{9} + \frac{4}{9} = \frac{6}{9} = \frac{2}{3}$
 c $\frac{7}{8} - \frac{5}{8} = \frac{2}{8} = \frac{1}{4}$
 d $\frac{18}{33} - \frac{7}{33} = \frac{11}{33} = \frac{1}{3}$

- 4a $\frac{1}{5} + \frac{3}{10} = \frac{2}{10} + \frac{3}{10} = \frac{5}{10} = \frac{1}{2}$
 b $\frac{1}{4} - \frac{1}{9} = \frac{9}{36} - \frac{4}{36} = \frac{5}{36}$

- c $\frac{1}{3} + \frac{5}{11} = \frac{11}{33} + \frac{15}{33} = \frac{26}{33}$
 d $\frac{3}{8} - \frac{1}{5} = \frac{15}{40} - \frac{8}{40} = \frac{7}{40}$

- 5a $1\frac{1}{2} + 2\frac{1}{4} + 2\frac{7}{8} = 1\frac{4}{8} + 2\frac{2}{8} + 2\frac{7}{8} = 5\frac{13}{8} = 6\frac{5}{8}$
 Richard heeft in totaal $6\frac{5}{8}$ meter touw.

- b $2\frac{7}{8} - 1\frac{1}{5} = 2\frac{35}{40} - 1\frac{8}{40} = 1\frac{27}{40}$
 Er blijft $1\frac{27}{40}$ meter touw over.

- 6a $\frac{7}{5} = 1\frac{2}{5}$
 b $\frac{28}{3} = 9\frac{1}{3}$

- c $\frac{40}{13} = 3\frac{1}{13}$
 d $\frac{125}{12} = 10\frac{5}{12}$

- 7a $\frac{6}{7} + \frac{2}{7} = \frac{8}{7} = 1\frac{1}{7}$

- b $1\frac{8}{9} + \frac{2}{3} = 1\frac{8}{9} + \frac{6}{9} = 1\frac{14}{9} = 2\frac{5}{9}$

- c $1\frac{3}{4} + 3\frac{5}{16} = 1\frac{12}{16} + 3\frac{5}{16} = 4\frac{17}{16} = 5\frac{1}{16}$

- d $3\frac{4}{5} + 7\frac{5}{6} = 3\frac{24}{30} + 7\frac{25}{30} = 10\frac{49}{30} = 11\frac{19}{30}$

Blok 1

$$8 \quad \frac{4}{5} + \frac{7}{8} + \frac{9}{10} = \frac{32}{40} + \frac{35}{40} + \frac{36}{40} = \frac{103}{40} = 2\frac{23}{40}$$

Er ligt in totaal $2\frac{23}{40}$ vlaai.

$$9a \quad 3\frac{2}{9} - \frac{5}{9} = 2 + \frac{9}{9} + \frac{2}{9} - \frac{5}{9} = 2 + \frac{11}{9} - \frac{5}{9} = 2\frac{6}{9} = 2\frac{2}{3}$$

$$b \quad 3\frac{1}{8} - 1\frac{2}{3} = 3\frac{3}{24} - 1\frac{16}{24} = 2 + \frac{24}{24} + \frac{3}{24} - 1 - \frac{16}{24} = 1 + \frac{11}{24} = 1\frac{11}{24}$$

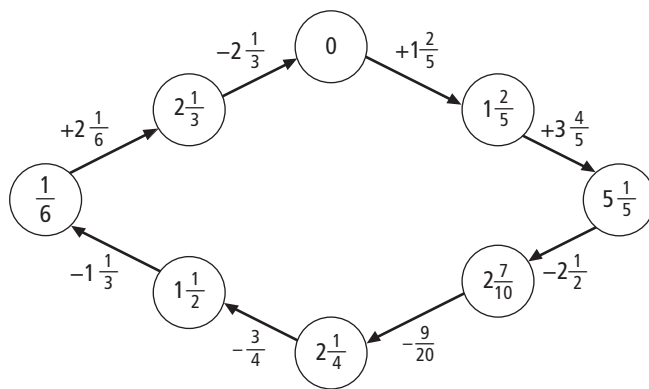
$$10a \quad 3\frac{1}{8} - 2\frac{1}{4} = 3\frac{1}{8} - 2\frac{2}{8} = 2 + \frac{8}{8} + \frac{1}{8} - 2 - \frac{2}{8} = \frac{7}{8}$$

$$b \quad 4\frac{1}{9} - \frac{4}{9} = 3 + \frac{9}{9} + \frac{1}{9} - \frac{4}{9} = 3\frac{6}{9} = 3\frac{2}{3}$$

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

$$d \quad 2\frac{1}{9} - 1\frac{1}{6} = 2\frac{2}{18} - 1\frac{3}{18} = 1 + \frac{18}{18} + \frac{2}{18} - 1 - \frac{3}{18} = \frac{17}{18}$$

11



1-5 Breuk × breuk

$$1a \quad \frac{1}{6} + \frac{1}{6} + \frac{1}{6} + \frac{1}{6} + \frac{1}{6} = \frac{5}{6}$$

$$5 \times \frac{1}{6} = \frac{5}{6}$$

$$b \quad \frac{3}{7} + \frac{3}{7} + \frac{3}{7} + \frac{3}{7} + \frac{3}{7} + \frac{3}{7} = \frac{18}{7} = 2\frac{4}{7}$$

$$6 \times \frac{3}{7} = \frac{18}{7} = 2\frac{4}{7}$$

$$2a \quad \frac{1}{3} \text{ deel van } 36 \text{ is } 36:3 = 12.$$

$$b \quad \frac{1}{3} \times 36 = 12$$

$$c \quad \frac{2}{3} \times 36 = 2 \times 12 = 24$$

$$3a \quad 7 \times \frac{3}{5} = \frac{7 \times 3}{5} = \frac{21}{5} = \frac{20}{5} + \frac{1}{5} = 4\frac{1}{5}$$

$$b \quad \frac{1}{8} \times 12 = \frac{1 \times 12}{8} = \frac{12}{8} = 1\frac{1}{2}$$

$$c \quad 6 \times \frac{1}{7} = \frac{6 \times 1}{7} = \frac{6}{7}$$

$$d \quad \frac{3}{8} \times 10 = \frac{3 \times 10}{8} = \frac{30}{8} = 3\frac{3}{4}$$

$$e \quad -4 \times \frac{2}{5} = -\frac{4 \times 2}{5} = -\frac{8}{5} = -1\frac{3}{5}$$

$$f \quad 8 \times -\frac{3}{7} = -\frac{8 \times 3}{7} = -\frac{24}{7} = -3\frac{3}{7}$$

$$g \quad \frac{2}{7} \times -9 = -\frac{2 \times 9}{7} = -\frac{18}{7} = -2\frac{4}{7}$$

$$h \quad -\frac{7}{11} \times -4 = \frac{7 \times 4}{11} = \frac{28}{11} = 2\frac{6}{11}$$

4a Theo krijgt vier stukjes.

b Sander krijgt 4: $4 = 1$ stukje van de reep, dat is $\frac{1}{10}$ deel van de reep.

$$c \quad \frac{1}{4} \times \frac{2}{5} = \frac{1}{10}$$

$$\begin{array}{ll} \text{5a} & \frac{1}{3} \times \frac{3}{5} = \frac{1 \times 3}{3 \times 5} = \frac{3}{15} = \frac{1}{5} \\ \text{b} & \frac{1}{8} \times -\frac{2}{3} = -\frac{1 \times 2}{8 \times 3} = -\frac{2}{24} = -\frac{1}{12} \\ \text{c} & \frac{2}{7} \times \frac{3}{8} = \frac{2 \times 3}{7 \times 8} = \frac{6}{56} = \frac{3}{28} \end{array} \quad \begin{array}{ll} \text{d} & -\frac{1}{5} \times \frac{5}{6} = -\frac{1 \times 5}{5 \times 6} = -\frac{5}{30} = -\frac{1}{6} \\ \text{e} & \frac{1}{8} \times \frac{1}{6} = \frac{1 \times 1}{8 \times 6} = \frac{1}{48} \\ \text{f} & \frac{2}{5} \times \frac{3}{8} = \frac{2 \times 3}{5 \times 8} = \frac{6}{40} = \frac{3}{20} \end{array}$$

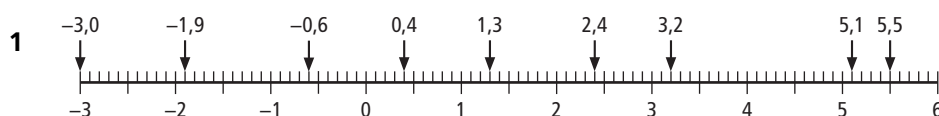
$$\begin{array}{ll} \text{6a} & \text{Voor } p = \frac{1}{2} \text{ geldt } q = 3 \times \frac{1}{2} + 5 = 6\frac{1}{2} \\ \text{b} & \text{Voor } p = \frac{3}{4} \text{ geldt } q = 3 \times \frac{3}{4} + 5 = 7\frac{1}{4} \\ \text{c} & \text{Voor } p = -\frac{1}{3} \text{ geldt } q = 3 \times -\frac{1}{3} + 5 = 4 \\ \text{d} & \text{Voor } p = -\frac{2}{5} \text{ geldt } q = 3 \times -\frac{2}{5} + 5 = 3\frac{4}{5} \end{array}$$

$$\begin{array}{ll} \text{7a} & (\frac{1}{2})^2 = \frac{1}{2} \times \frac{1}{2} = \frac{1}{4} \\ \text{b} & (\frac{3}{5})^2 = \frac{3}{5} \times \frac{3}{5} = \frac{9}{25} \\ \text{c} & (\frac{2}{7})^2 = \frac{2}{7} \times \frac{2}{7} = \frac{4}{49} \end{array} \quad \begin{array}{ll} \text{d} & (\frac{1}{3})^2 = \frac{1}{3} \times \frac{1}{3} = \frac{1}{9} \\ \text{e} & (-\frac{5}{8})^2 = -\frac{5}{8} \times -\frac{5}{8} = \frac{25}{64} \\ \text{f} & (-\frac{3}{10})^2 = -\frac{3}{10} \times -\frac{3}{10} = \frac{9}{100} \end{array}$$

- 8a** Van de opbrengst gaat $\frac{6}{7}$ deel naar Jantje Beton en Kika.
 Naar Kika gaat $\frac{2}{3} \times \frac{6}{7} = \frac{12}{21} = \frac{4}{7}$ deel.
b $\frac{1}{7}$ deel van de opbrengst is € 1.500,- dus de hele opbrengst is $7 \times 1500 = 10\,500$ euro.
 $10\,500 - 1500 = 9000$
 Naar Jantje Beton gaat $\frac{1}{3}$ deel van 9000 euro, dat is $9000 : 3 = 3000$ euro.

- 9a** In 2 vwo zit $\frac{2}{5} \times \frac{3}{10} = \frac{6}{50} = \frac{3}{25}$ deel van alle leerlingen.
b In 2 havo zitten $\frac{3}{5} \times 360 = 216$ leerlingen.
c $\frac{3}{10}$ deel = 360, dus $\frac{1}{10}$ deel = 120
 De scholengemeenschap heeft $10 \times 120 = 1200$ leerlingen.

1-6 Decimale getallen optellen en aftrekken



$$\begin{array}{lll} \text{2a} & \frac{1}{2} = 0,5 & \text{c} \quad \frac{4}{5} = 0,8 \\ \text{b} & \frac{3}{4} = 0,75 & \text{d} \quad \frac{3}{100} = 0,03 \end{array} \quad \begin{array}{l} \text{e} \quad \frac{7}{50} = 0,14 \\ \text{f} \quad \frac{15}{1000} = 0,015 \end{array}$$

- 3a** In totaal moet Samantha € 1,20 + € 3,70 + € 0,80 = € 1,20 + € 0,80 + € 3,70 = € 5,70 betalen.
b Ze krijgt € 4,30 terug.

Blok 1

- 4a** $€ 5,30 + € 1,60 + € 3,10 = € 10,-$ **c** $€ 7,60 + € 3,15 - € 4,75 = € 6,-$
b $€ 2,35 + € 1,40 + € 4,70 = € 8,45$ **d** $€ 7,65 - € 0,85 + € 4,40 = € 11,20$
- 5a** $6,35 + 2,15 = 8,5$ **d** $4,58 + 2,72 = 7,3$
b $9,37 - 2,23 = 7,14$ **e** $3,25 - 4,78 = -1,53$
c $7,70 + 5,15 = 12,85$ **f** $-3,24 + 8,30 = 5,06$
- 6a** $3,4 - 2,08 = 3,40 - 2,08 = 1,32$
b $2,13 + 1,8 = 2,13 + 1,80 = 3,93$
c $7,4 - 7,04 = 7,40 - 7,04 = 0,36$
d $5,19 - 5,7 = 5,19 - 5,70 = -0,51$
- 7** $87,934 - 6,103 = 81,831$
- 8a** $15,091 + 123,76 = 138,851$
b $453,9 - 160,907 = 292,993$
c $1,08 + 23,6 + 504,112 = 528,792$
- 9a** $10,891 + 5,1052 + 0,78$ is ongeveer $11 + 5 + 1$ dus ongeveer 17.
b $14,98 - 3,863 + 2,1009$ is ongeveer $15 - 4 + 2$ dus ongeveer 13.
c $0,09998 + 1,86 - 0,907$ is ongeveer $0 + 2 - 1$ dus ongeveer 1.
- 10a** Hij krijgt $28,35 - 21,95 = 6,40$ euro korting.
b Zij moet $21,95 + 21,95 + 21,95 = 65,85$ euro betalen.

Test jezelf

- T-1a** 652 miljoen = 652 000 000
b 4,5 miljard = 4 500 000 000
c driehonderd-en-vijfenzeventigduizend = 375 000
- T-2a** $-5 < -4$ **c** $-12,3 > -12,4$ **e** $-\frac{2}{7} < -\frac{2}{9}$
b $110,3 > 109,9$ **d** $\frac{1}{11} > \frac{1}{12}$ **f** $4\frac{1}{3} > 4,3$
- T-3a** $523 + 47 = 570$ **c** $37 + 73 = 110$ **e** $380 - 553 = -173$
b $126 + 279 = 405$ **d** $400 - 251 = 149$ **f** $707 - 907 = -200$
- T-4** De som van 157 en 63 is $157 + 63 = 220$.
Het verschil van 157 en 63 is $157 - 63 = 94$.
- T-5** $54 - 16 = 38$
 $63 - 38 = 25$
Ruben heeft 25 knikkers van Geert gewonnen.
- T-6a** $3 \times 4 = 12$ **d** $-5 \times -2 = 10$ **g** $13 \times 40 = 520$
b $6 \times 3 = 18$ **e** $7 \times -7 = -49$ **h** $8 \times 24 = 192$
c $0 \times -9 = 0$ **f** $-5 \times -18 = 90$ **i** $32 \times 48 = 1536$

T-7 Joop gaat $9 \times 7 + 5 = 63 + 5 = 68$ dagen naar Canada.

T-8a $\frac{9}{7} - \frac{4}{7} = \frac{5}{7}$

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

c $\frac{1}{6} + 1\frac{3}{4} = \frac{2}{12} + 1\frac{9}{12} = 1\frac{11}{12}$

d $3\frac{3}{4} - 2\frac{1}{3} = 3\frac{9}{12} - 2\frac{4}{12} = 1\frac{5}{12}$

e $6\frac{1}{9} - 5\frac{4}{9} = 5 + \frac{9}{9} + \frac{1}{9} - 5 - \frac{4}{9} = \frac{6}{9} = \frac{2}{3}$

f $3\frac{8}{11} - \frac{4}{5} = 3\frac{40}{55} - \frac{44}{55} = 2 + \frac{55}{55} + \frac{40}{55} - \frac{44}{55} = 2\frac{51}{55}$

T-9 $3\frac{1}{2} - 1\frac{1}{4} - \frac{2}{3} = 3\frac{6}{12} - 1 - \frac{3}{12} - \frac{8}{12} = 2 + \frac{12}{12} + \frac{6}{12} - \frac{11}{12} = 2\frac{7}{12}$

T-10a $10 \times \frac{3}{5} = \frac{30}{5} = 6$

b $\frac{3}{4} \times -8 = -\frac{24}{4} = -6$

c $\frac{2}{7} \times \frac{5}{6} = \frac{10}{42} = \frac{5}{21}$

d $(-\frac{5}{6})^2 = \frac{25}{36}$

e $-\frac{3}{8} \times \frac{5}{6} = -\frac{15}{48} = -\frac{5}{16}$

f $-3 \times \frac{5}{6} = -\frac{15}{6} = -2\frac{1}{2}$

T-11 De oppervlakte is $3 \times \frac{4}{5} = \frac{12}{5} = 2\frac{2}{5}$.

T-12a $514,921 + 37,2 = 552,121$

b $27,13 + 19,5 + 0,168 = 46,798$

c $87,101 - 72,29 = 14,811$

d $45,05 - 34,33 = 10,72$

T-13 300 gram champignons kost $3 \times 0,49 = 1,47$ euro.

$1,47 + 1,19 = 2,66$ euro

Ze krijgt $5 - 2,66 = 2,34$ euro terug.

Extra oefening

E-1 De oppervlakte is ongeveer 10 miljoen km^2 .

Het aantal inwoners is ongeveer 35 miljoen.

Het gemiddeld aantal inwoners per km^2 is dus ongeveer 35 miljoen: 10 miljoen dus ongeveer 3,5.

E-2a 123 700 = honderd-drieëntwintig-duizend zevenhonderd

b 5 798 = vijfduizend zevenhonderd en acht-en-negentig
of zevenenvijftighonderd acht-en-negentig

E-3

$\begin{array}{r} 1 \\ 3\ 4\ 8 \\ \hline 3\ 2\ 7 \\ 6\ 7\ 5 \end{array}$	$\begin{array}{r} 1 \\ 7\ 9\ 0 \\ \hline 5\ 3\ 9 \\ 1\ 3\ 2\ 9 \end{array}$	$\begin{array}{r} 1 \\ 9\ 2\ 5 \\ \hline 3\ 1\ 7 \\ 1\ 2\ 4\ 2 \end{array}$	$\begin{array}{r} 613 \\ 7\ 3\ 6 \\ \hline 4\ 5\ 2 \\ 2\ 8\ 4 \end{array}$	$\begin{array}{r} 8\ 10\ 15 \\ 9\ 1\ 3 \\ \hline 4\ 8\ 9 \\ 4\ 2\ 6 \end{array}$
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E-4a $-29 - 51 + 49 = -31$

b $35 - 120 = -85$

c $12 - 73 = -61$

d $-38 + 68 - 12 = 18$

e $70 - (121 - 11) = 70 - 110 = -40$

f $61 + (28 - 40) = 61 + -12 = 49$

$$\begin{array}{r} \text{E-5} \quad \begin{array}{r} 38 \\ \underline{65} \times \\ 190 \\ \underline{2280} + \\ 2470 \end{array} \quad \begin{array}{r} 28 \\ \underline{49} \times \\ 252 \\ \underline{1120} + \\ 1372 \end{array} \quad \begin{array}{r} 49 \\ \underline{77} \times \\ 343 \\ \underline{3430} + \\ 3773 \end{array} \end{array}$$

E-6a $b = -3 \times 6 + 12 = -18 + 12 = -6$
b $b = -3 \times -7 + 12 = 21 + 12 = 33$

E-7a $1\frac{5}{6} + \frac{3}{4} = 1\frac{10}{12} + \frac{9}{12} = 1\frac{19}{12} = 2\frac{7}{12}$
b $1\frac{1}{2} + 1\frac{3}{5} = 1\frac{5}{10} + 1\frac{6}{10} = 2\frac{11}{10} = 3\frac{1}{10}$
c $4\frac{5}{6} + 6\frac{2}{3} = 4\frac{5}{6} + 6\frac{4}{6} = 10\frac{9}{6} = 11\frac{3}{6} = 11\frac{1}{2}$
d $1\frac{2}{3} - 1\frac{1}{6} = 1\frac{4}{6} - 1\frac{1}{6} = \frac{3}{6} = \frac{1}{2}$
e $5\frac{5}{12} - 1\frac{3}{4} = 5\frac{5}{12} - 1\frac{9}{12} = 4 + \frac{12}{12} + \frac{5}{12} - 1 - \frac{9}{12} = 3\frac{8}{12} = 3\frac{2}{3}$
f $12\frac{1}{12} - 2\frac{5}{6} = 12\frac{1}{12} - 2\frac{10}{12} = 11 + \frac{12}{12} + \frac{1}{12} - 2 - \frac{10}{12} = 9\frac{3}{12} = 9\frac{1}{4}$

E-8 $\frac{1}{4} + \frac{3}{5} = \frac{5}{20} + \frac{12}{20} = \frac{17}{20}$
 Er zit dan $\frac{17}{20}$ dL vloeistof in de beker.

E-9a Van de knikkers is $1 - \frac{1}{4} = \frac{3}{4}$ deel niet rood.
 Van alle knikkers is $\frac{1}{5} \times \frac{3}{4} = \frac{3}{20}$ deel groen.
b $\frac{1}{4} \times 60 = 15$ knikkers zijn rood, dus 45 knikkers niet.
 Juul heeft $\frac{4}{5} \times 45 = \frac{180}{5} = 36$ blauwe knikkers.

E-10a $\frac{3}{5} \times \frac{7}{10} = \frac{21}{50}$ **d** $(\frac{2}{3})^2 = \frac{4}{9}$
b $-6 \times \frac{3}{5} = -\frac{18}{5} = -3\frac{3}{5}$ **e** $(-\frac{4}{9})^2 = \frac{16}{81}$
c $\frac{3}{7} \times 3 = \frac{9}{7} = 1\frac{2}{7}$ **f** $-\frac{1}{8} \times -\frac{6}{7} = \frac{6}{56} = \frac{3}{28}$

E-11a $9,78 + 1,109 + 5,903 = 16,792$
b $23,12 - 4,97 = 18,15$
c $7,68 + 5,207 - 0,009 = 12,878$

E-12 129,70 euro is ongeveer 130 euro.
 28,95 is ongeveer 29 euro.
 8,99 is ongeveer 9 euro.
 Joost moet ongeveer $130 + 29 + 9 = 168$ euro betalen.