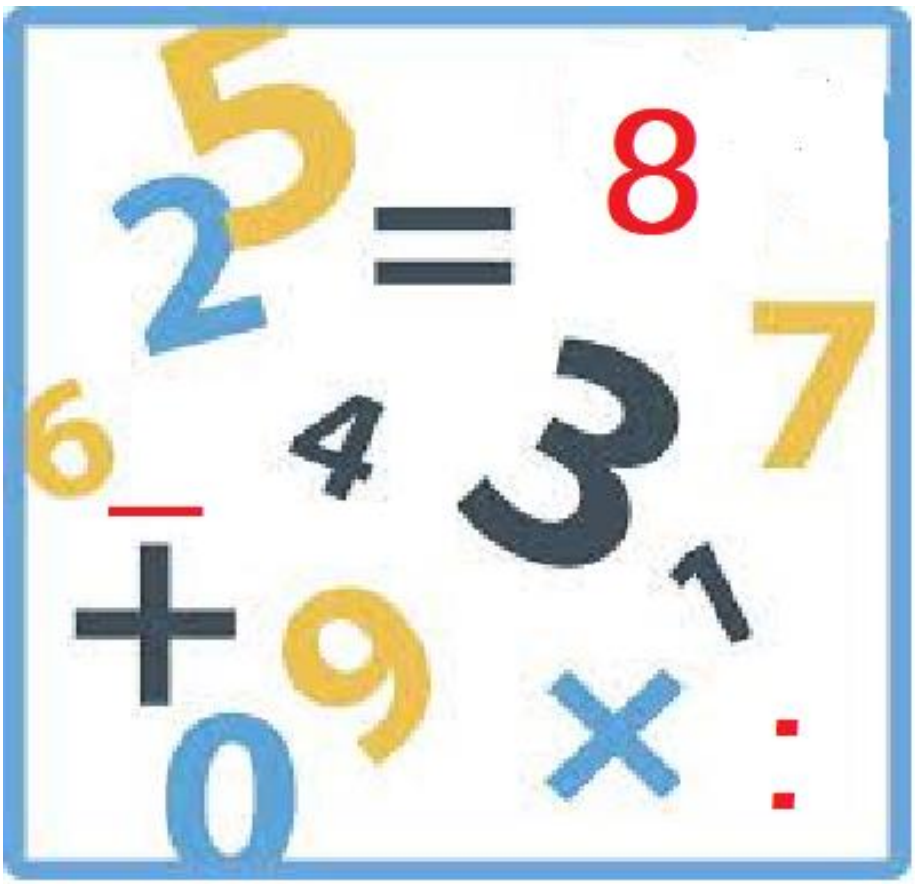
basisvaardigheid

REKENEN

Basisvaardigheden 7/8



breuken

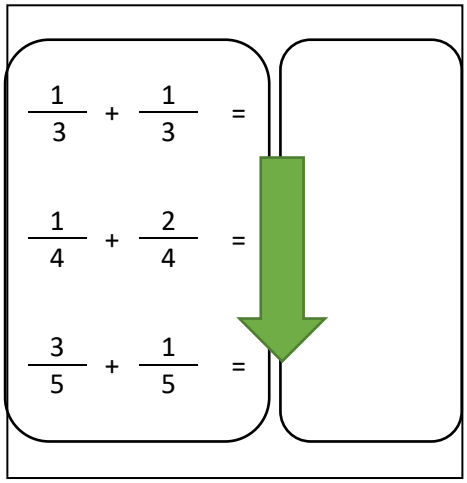
gelijknamige breuken

oefenboekje van ……

Aan het werk

- Leer goed de voorbeeldsommen.
- Oefen steeds een paar sommen.
- Kijk ze na.

Antwoorden achter in dit boekje.



Alle sommen goed, maak dan:

de volgende paar.

Een foutje gemaakt? Maak dan deze som opnieuw.

Lukt het niet, vraag dan hulp voordat je doorgaat.

Voor de leerkracht

Dit materiaal is bedoeld als extra zelfstandig oefenmateriaal voor leerlingen, in combinatie met een heldere instructie en goede voorbeelden door de leerkracht.

Breuken

Een breuk is een deel van een geheel (taart, cirkel, pizza).

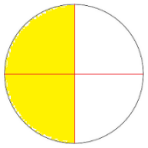
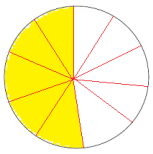
Een breuk bestaat uit een teller en een noemer.

$$\textbf{Breuk} = \frac{teller}{noemer}$$

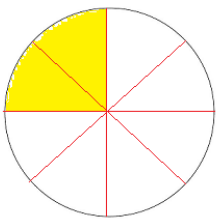
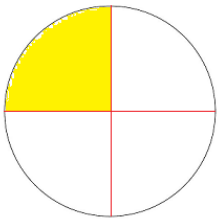
Breuken; vereenvoudigen -1-

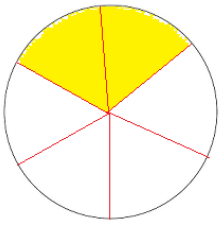
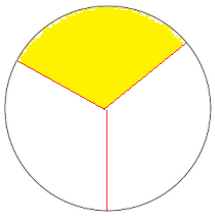
Sommige breuken kun je eenvoudiger schrijven. Zo is $\frac{2}{4}$ even groot als $\frac{1}{2}$.

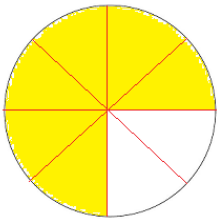
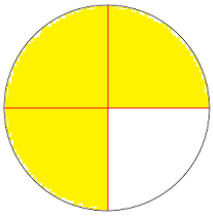
Maar ook $\frac{3}{6}$, $\frac{4}{8}$ en $\frac{5}{10}$ zijn even groot als $\frac{1}{2}$ (de helft!)

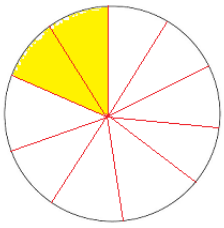
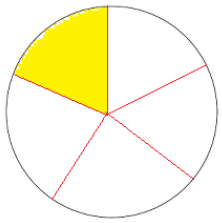
$\frac{2}{4}$  $= \frac{1}{2}$  $= \frac{3}{6}$  $= \frac{4}{8}$  $= \frac{5}{10}$ 

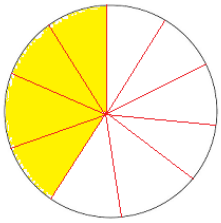
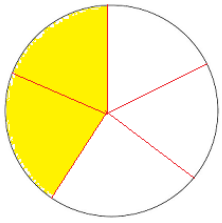
Welke breuken zijn ook gelijk?

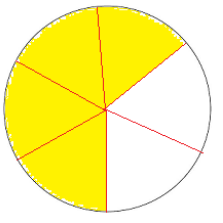
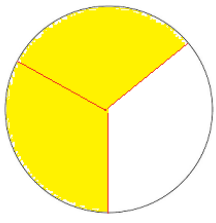
 ___ = ___ 

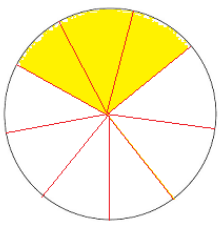
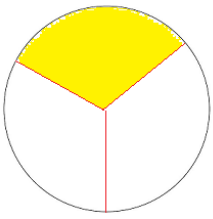
 ___ = ___ 

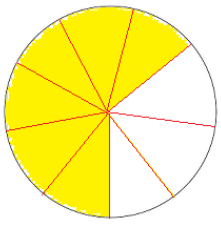
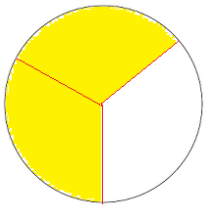
 ___ = ___ 

 ___ = ___ 

 ___ = ___ 

 ___ = ___ 

 ___ = ___ 

 ___ = ___ 

De antwoorden staan achter in dit boekje bij Antwoorden.

Breuken; vereenvoudigen -2-

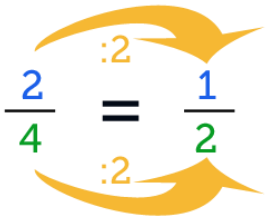
Let op, het vereenvoudigen van een breuk is NIET het verkleinen van de breuk. De breuk blijft even groot (=), maar je schrijft het vereenvoudigd op.
De breuk $\frac{2}{4}$ is gelijk en evengroot als de breuk $\frac{1}{2}$.

Het vereenvoudigen van breuken kun je ook uitrekenen. Dat doe je door de teller en de noemer door hetzelfde getal te delen. Dat getal is de tafel waarin ze allebei een antwoord zijn.

In de breuk $\frac{2}{4}$ is de teller: 2 en de noemer: 4.

Beiden zijn een antwoord in de tafel van 2.

We delen beide getallen door 2.

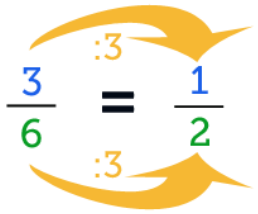


1x2= 2
2x2= 4
3x2= 6
...

In de breuk $\frac{3}{6}$ is de teller: 3 en de noemer: 6.

Beiden zijn een antwoord in de tafel van 3.

We delen beide getallen door 3.

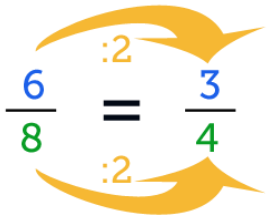


1x3= 3
2x3= 6
3x3= 9
...

In de breuk $\frac{6}{8}$ is de teller: 6 en de noemer: 8

Beiden zijn een antwoord in de tafel van 2.

We delen beide getallen door 2.



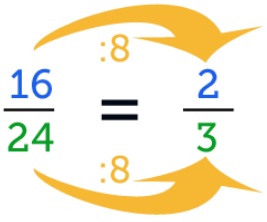
...
2x2= 4
3x2= 6
4x2= 8
...

In de breuk $\frac{16}{24}$ is de teller: 16 en de noemer: 24.

Beiden zijn antwoorden in meerdere tafels (2, 4 en 8).

We kiezen dan de grootste tafel: 8.

We delen beide getallen door 8.

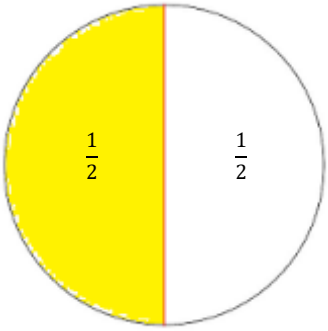


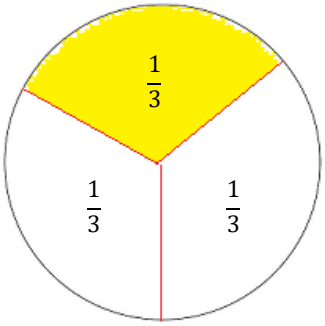
1x8= 8
2x8= 16
3x8= 24
...

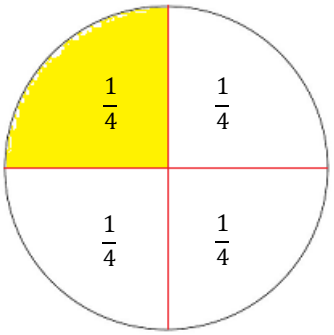
Maak ‘Breuken sommen vereenvoudigen’.

Breuken; vereenvoudigen -3-

In een hele (taart, cirkel, pizza) zit een aantal stukjes. Alle stukjes samen is een hele.







In een taart met 2 stukjes zijn dat 2 stukjes van $\frac{1}{2}$. Samen $\frac{2}{2}$ = 1 hele.

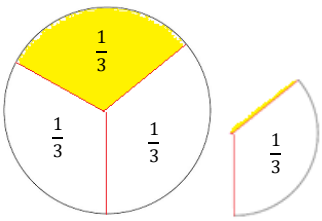
In een cirkel met 3 stukjes zijn dat 3 stukjes van $\frac{1}{3}$. Samen $\frac{3}{3}$ = 1.

In een pizza met 4 stukjes zijn dat 4 stukjes van $\frac{1}{4}$. Samen $\frac{4}{4}$ = 1.

Helen eruit…

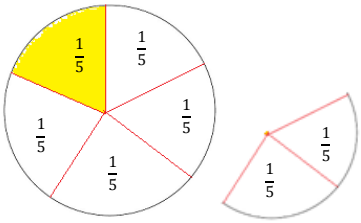
In de breuk $\frac{4}{3}$ zitten 4 stukjes van $\frac{1}{3}$. Dat is een hele ($\frac{3}{3}$) en nog $\frac{1}{3}$.

Samen $1\frac{1}{3}$.



In de breuk $\frac{7}{5}$ zitten 7 stukjes van $\frac{1}{5}$. Dat is een hele ($\frac{5}{5}$) en nog $\frac{2}{5}$.

Samen $1\frac{2}{5}$.



$\frac{5}{5}$ =	$\frac{9}{9}$ =	$\frac{3}{3}$ =	$\frac{7}{7}$ =
$\frac{2}{2}$ =	$\frac{6}{6}$ =	$\frac{8}{8}$ =	$\frac{20}{10}$ =
$\frac{6}{5}$ =	$\frac{16}{9}$ =	$\frac{5}{3}$ =	$\frac{10}{7}$ =
$\frac{3}{2}$ =	$\frac{11}{6}$ =	$\frac{19}{8}$ =	$\frac{27}{10}$ =

De antwoorden staan achter in dit boekje bij Antwoorden.

Breuken sommen vereenvoudigen -1-

Vul de tabel in en vereenvoudig de breuk.

Breuk	Teller	Noemer	In tafel(s)	Delen door	Vereenvoudigde breuk
$\frac{3}{6}$	3	6	3	3	$\frac{1}{2}$
$\frac{16}{24}$	16	24	2 – 4 – 8	8	
$\frac{3}{9}$					
$\frac{2}{8}$					
$\frac{4}{12}$					
$\frac{3}{12}$					
$\frac{5}{15}$					
$\frac{12}{18}$					
$\frac{8}{20}$					
$\frac{4}{14}$					
$\frac{4}{6}$					

Breuken sommen vereenvoudigen -2-

Vereenvoudig onderstaande breuken.

$\frac{2}{4}$ =

$\frac{2}{6}$ =

$\frac{3}{6}$ =

$\frac{4}{6}$ =

$\frac{2}{8}$ =

$\frac{4}{8}$ =

$\frac{6}{8}$ =

$\frac{3}{9}$ =

$\frac{6}{9}$ =

$\frac{2}{10}$ =

$\frac{4}{10}$ =

$\frac{5}{10}$ =

$\frac{6}{10}$ =

$\frac{8}{10}$ =

$\frac{2}{12}$ =

$\frac{3}{12}$ =

$\frac{4}{12}$ =

$\frac{6}{12}$ =

$\frac{8}{12}$ =

$\frac{9}{12}$ =

$\frac{10}{12}$ =

$\frac{2}{14}$ =

$\frac{4}{14}$ =

$\frac{6}{14}$ =

$\frac{7}{14}$ =

$\frac{8}{14}$ =

$\frac{10}{14}$ =

$\frac{12}{14}$ =

$\frac{5}{15}$ =

$\frac{10}{15}$ =

$\frac{3}{18}$ =

$\frac{6}{18}$ =

$\frac{9}{18}$ =

$\frac{15}{18}$ =

$\frac{10}{20}$ =

$\frac{12}{24}$ =

Let op: We kunnen alleen de breuk vereenvoudigen. De helen blijven gelijk: $2\frac{2}{4} = 2\frac{1}{2}$.

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

$5\frac{3}{9}$ =

$3\frac{4}{16}$ =

$6\frac{2}{6}$ =

$1\frac{4}{10}$ =

$7\frac{6}{16}$ =

$4\frac{9}{12}$ =

$12\frac{18}{24}$ =

$11\frac{8}{12}$ =

$9\frac{6}{9}$ =

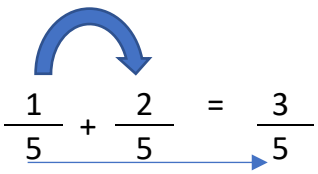
$8\frac{8}{20}$ =

$10\frac{5}{15}$ =

Gelijknamige breuken; sommen -1-

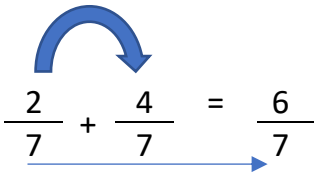
Breuken met dezelfde noemers kun je **optellen** door de tellers bij elkaar op te tellen. De noemer blijft hetzelfde.

1+2= 3



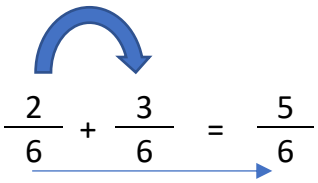
$\frac{1}{5} + \frac{2}{5} = \frac{3}{5}$

2+4= 6



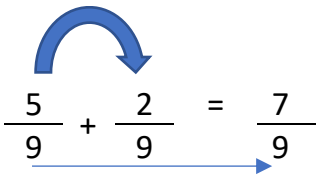
$\frac{2}{7} + \frac{4}{7} = \frac{6}{7}$

2+3= 5



$\frac{2}{6} + \frac{3}{6} = \frac{5}{6}$

5+2= 7



$\frac{5}{9} + \frac{2}{9} = \frac{7}{9}$

$\frac{1}{3} + \frac{1}{3} =$

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

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

$\frac{2}{7} + \frac{3}{7} =$

$\frac{4}{9} + \frac{3}{9} =$

$\frac{1}{8} + \frac{6}{8} =$

$\frac{1}{10} + \frac{6}{10} =$

$\frac{3}{11} + \frac{7}{11} =$

$\frac{4}{15} + \frac{7}{15} =$

$\frac{7}{13} + \frac{2}{13} =$

$\frac{1}{7} + \frac{4}{7} =$

$\frac{2}{5} + \frac{2}{5} =$

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

$\frac{5}{9} + \frac{2}{9} =$

$\frac{3}{6} + \frac{2}{6} =$

$\frac{1}{11} + \frac{4}{11} =$

$\frac{3}{13} + \frac{8}{13} =$

$\frac{10}{16} + \frac{5}{16} =$

$\frac{3}{71} + \frac{26}{71} =$

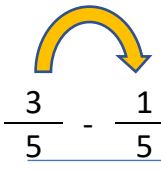
$\frac{8}{17} + \frac{8}{17} =$

$\frac{1}{3} + \frac{1}{3} =$

Gelijknamige breuken; sommen -2-

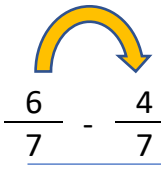
Breuken met dezelfde noemers kun je **aftrekken** door de tellers van elkaar af te trekken. De noemer blijft hetzelfde.

3-1= 2



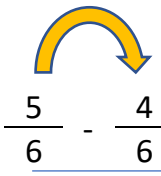
$\frac{3}{5} - \frac{1}{5} = \frac{2}{5}$

6-4= 2



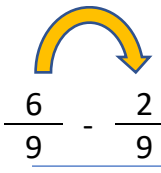
$\frac{6}{7} - \frac{4}{7} = \frac{2}{7}$

5-4= 1



$\frac{5}{6} - \frac{4}{6} = \frac{1}{6}$

6-2= 4



$\frac{6}{9} - \frac{2}{9} = \frac{4}{9}$

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

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

$\frac{3}{5} - \frac{1}{5} =$

$\frac{6}{7} - \frac{3}{7} =$

$\frac{8}{9} - \frac{3}{9} =$

$\frac{7}{8} - \frac{6}{8} =$

$\frac{9}{10} - \frac{6}{10} =$

$\frac{10}{11} - \frac{7}{11} =$

$\frac{9}{15} - \frac{7}{15} =$

$\frac{7}{13} - \frac{2}{13} =$

$\frac{5}{7} - \frac{4}{7} =$

$\frac{4}{5} - \frac{2}{5} =$

$\frac{7}{8} - \frac{4}{8} =$

$\frac{7}{9} - \frac{2}{9} =$

$\frac{3}{6} - \frac{2}{6} =$

$\frac{6}{11} - \frac{4}{11} =$

$\frac{12}{13} - \frac{8}{13} =$

$\frac{12}{16} - \frac{5}{16} =$

$\frac{53}{71} - \frac{26}{71} =$

$\frac{14}{17} - \frac{8}{17} =$

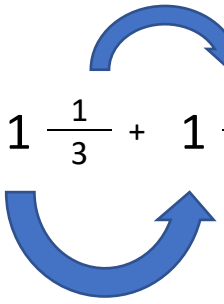
$\frac{2}{3} - \frac{1}{3} =$

Gelijknamige breuken; sommen -3-

Helen en breuken tel je op door de helen bij elkaar op te tellen en de breuken bij elkaar op te tellen.

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

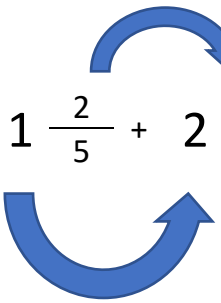
$1\frac{1}{3} + 1\frac{1}{3} = 2\frac{2}{3}$



1+1= 2

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

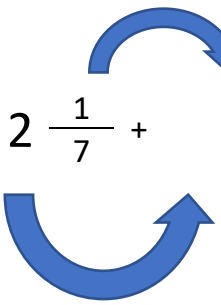
$1\frac{2}{5} + 2\frac{1}{5} = 3\frac{3}{5}$



1+2= 3

$\frac{1}{7}+\frac{5}{7}=\frac{6}{7}$

$2\frac{1}{7} + \frac{5}{7} = 2\frac{6}{7}$



2+0= 2

$1\frac{1}{3} + 2\frac{1}{3} =$	$2\frac{4}{7} + 5\frac{2}{7} =$
$2\frac{2}{7} + 3\frac{4}{7} =$	$2\frac{3}{5} + 4\frac{1}{5} =$
$3\frac{3}{8} + 2\frac{2}{8} =$	$2\frac{3}{8} + 6\frac{2}{8} =$
$4\frac{4}{6} + 4\frac{1}{6} =$	$2\frac{4}{11} + 3\frac{5}{11} =$
$5\frac{5}{9} + 2\frac{3}{9} =$	$2\frac{1}{4} + 8\frac{2}{4} =$
$6\frac{6}{11} + 5\frac{4}{11} =$	$2\frac{5}{17} + 1\frac{1}{17} =$
$7\frac{7}{10} + 2\frac{2}{10} =$	$2\frac{6}{13} + 7\frac{3}{13} =$
$8\frac{8}{13} + 6\frac{3}{13} =$	$2\frac{1}{23} + 5\frac{2}{23} =$
$9\frac{9}{20} + 2\frac{10}{20} =$	$2\frac{5}{14} + 9\frac{4}{14} =$
$3\frac{10}{23} + 7\frac{7}{23} =$	$2\frac{2}{9} + 2\frac{3}{9} =$

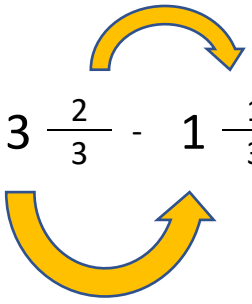
$1\frac{1}{3} + 2\frac{1}{3} =$

Gelijknamige breuken; sommen -4-

Helen en breuken trek je af door de helen van elkaar af te trekken en de breuken van elkaar af te trekken.

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

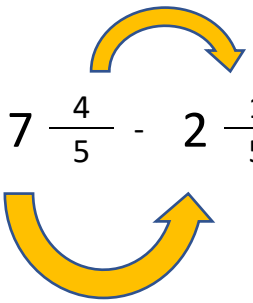
$3\frac{2}{3} - 1\frac{1}{3} = 2\frac{1}{3}$



3-1= 2

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

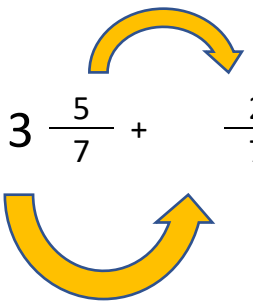
$7\frac{4}{5} - 2\frac{1}{5} = 5\frac{3}{5}$



7-2= 5

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

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



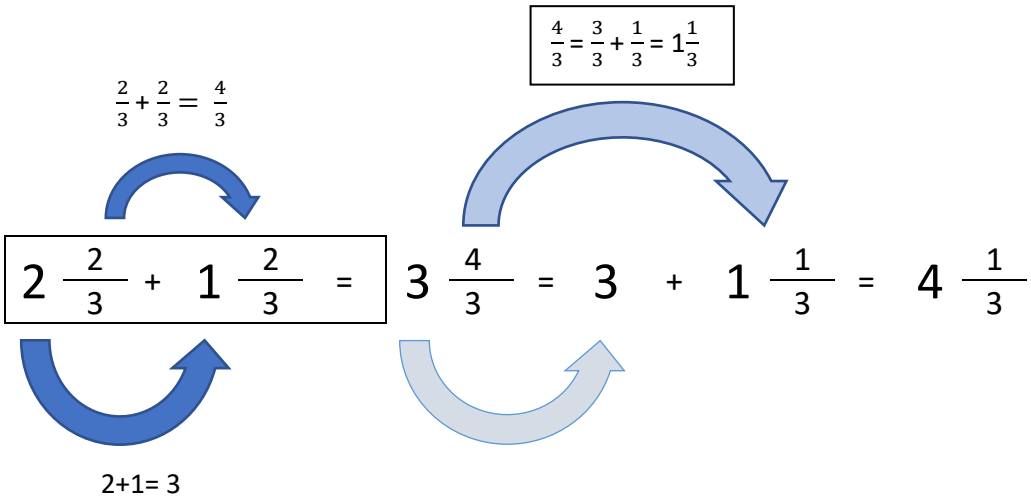
3-

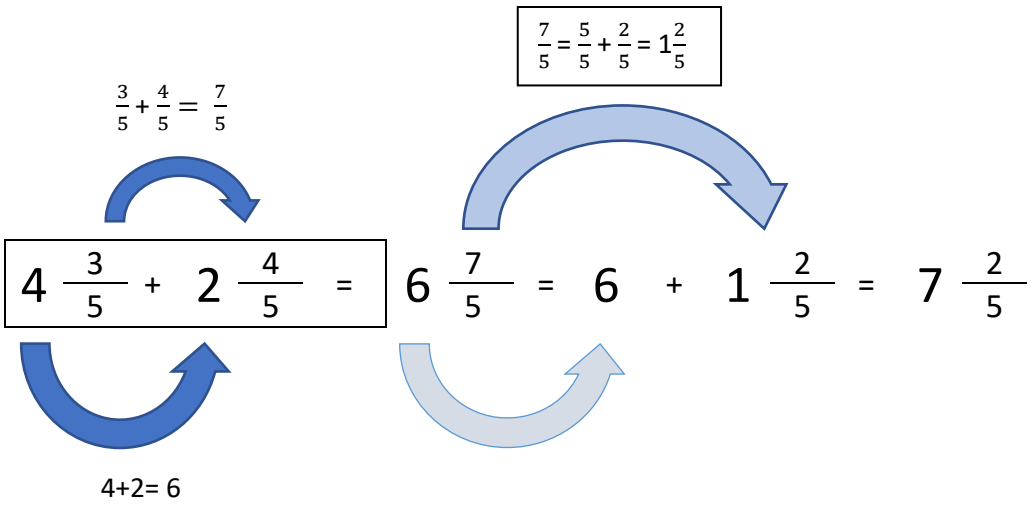
$6\frac{2}{3} - 2\frac{1}{3} =$	$8\frac{4}{7} - 5\frac{2}{7} =$
$5\frac{6}{7} - 3\frac{4}{7} =$	$9\frac{3}{5} - 4\frac{1}{5} =$
$8\frac{3}{8} - 2\frac{2}{8} =$	$7\frac{3}{8} - 6\frac{2}{8} =$
$7\frac{4}{6} - 4\frac{3}{6} =$	$5\frac{7}{11} - 3\frac{5}{11} =$
$5\frac{5}{9} - 2\frac{3}{9} =$	$9\frac{3}{4} - 8\frac{2}{4} =$
$6\frac{6}{11} - 5\frac{4}{11} =$	$3\frac{5}{17} - 1\frac{1}{17} =$
$7\frac{7}{10} - 2\frac{4}{10} =$	$8\frac{6}{13} - 7\frac{3}{13} =$
$8\frac{8}{13} - 6\frac{3}{13} =$	$8\frac{11}{23} - 5\frac{2}{23} =$
$9\frac{19}{20} - 2\frac{10}{20} =$	$5\frac{5}{14} - 1\frac{4}{14} =$
$9\frac{10}{23} - 7\frac{7}{23} =$	$2\frac{7}{9} - 2\frac{3}{9} =$

$6\frac{2}{3} - 2\frac{1}{3} =$

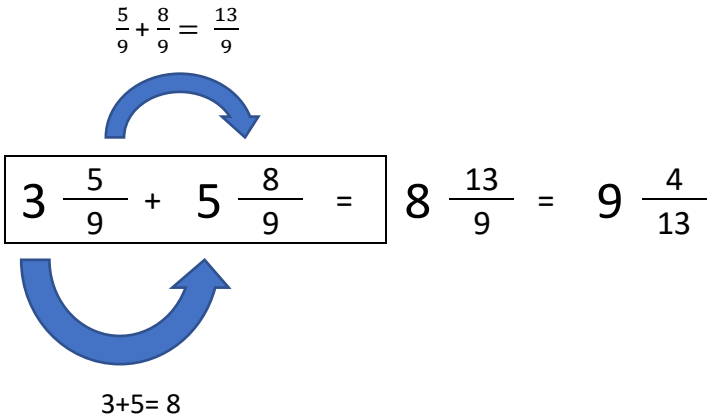
Gelijknamige breuken; sommen -5-

Helen en breuken tel je op door de helen bij elkaar op te tellen en de breuken bij elkaar op te tellen. Bij opgetelde breuken kun je er soms nog **helen uit**halen. Die tel je op bij de helen.





Verkort:



Zorg dat je deze uitwerkingen begrijpt voordat je de sommen gaat maken.

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

$4\frac{4}{9} + 3\frac{7}{9} = 7\frac{11}{9} = 7 + 1\frac{2}{9} = 8\frac{2}{9}$

$6\frac{4}{11} + 6\frac{10}{11} = 12\frac{14}{11} = 12 + 1\frac{3}{11} = 13\frac{3}{11}$

$6\frac{3}{10} + 5\frac{8}{10} = 11\frac{11}{10} = 12\frac{1}{10}$

$5\frac{5}{6} + 3\frac{5}{6} = 8\frac{10}{6} = 9\frac{4}{6} = 9\frac{2}{3}$

$6\frac{5}{7} + 3\frac{2}{7} = 9\frac{7}{7} = 10$

Gelijknamige breuken; sommen -5-

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

$2\frac{6}{7} + 3\frac{4}{7} =$

$3\frac{5}{8} + 5\frac{4}{8} =$

$4\frac{4}{6} + 2\frac{3}{6} =$

$5\frac{6}{9} + 1\frac{4}{9} =$

$2\frac{6}{11} + 5\frac{8}{11} =$

$1\frac{4}{10} + 2\frac{9}{10} =$

$1\frac{12}{13} + 6\frac{3}{13} =$

$3\frac{17}{20} + 5\frac{10}{20} =$

$1\frac{8}{23} + 3\frac{17}{23} =$

$4\frac{4}{7} + 1\frac{5}{7} =$

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

$5\frac{7}{8} + 2\frac{4}{8} =$

$1\frac{9}{11} + 6\frac{5}{11} =$

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

$5\frac{15}{17} + 1\frac{4}{17} =$

$5\frac{11}{13} + 7\frac{3}{13} =$

$4\frac{11}{23} + 5\frac{20}{23} =$

$1\frac{12}{14} + 6\frac{11}{14} =$

$2\frac{5}{9} + 2\frac{5}{9} =$

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

Gelijknamige breuken; sommen -6-

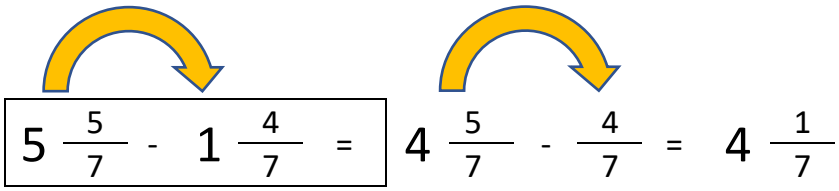
Helen en breuken trek je af door <u>eerst</u> de helen van elkaar af te trekken en <u>daarna</u> de breuken van elkaar af te trekken. Als de breuk die je aftrekt groter is dan de eerste breuk, doe je dat in twee delen.

Helen eraf

$5\frac{5}{7} - 1 = 4\frac{5}{7}$

Breuk eraf

$4\frac{5}{7} - \frac{4}{7} = 4\frac{1}{7}$

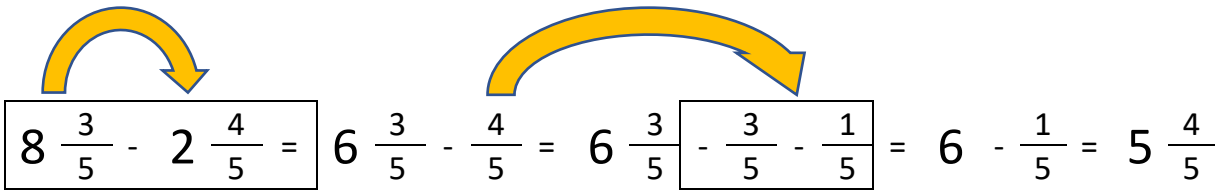


Helen eraf

$8\frac{3}{5} - 2 = 6\frac{3}{5}$

Breuk eraf in twee delen

$6\frac{3}{5} - \frac{4}{5} = \ldots \quad -\frac{3}{5} - \frac{1}{5}$



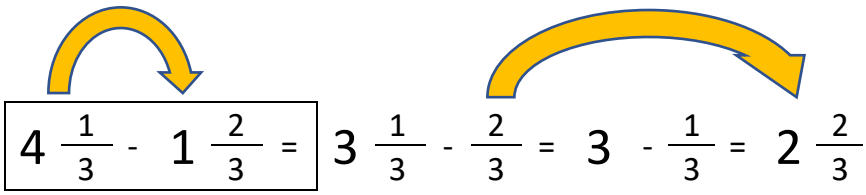
Verkort:

Helen eraf

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

Breuk eraf in twee delen

$3\frac{1}{3} - \frac{2}{3} = \ldots \quad -\frac{1}{3} - \frac{1}{3}$



Zorg dat je deze uitwerkingen begrijpt voordat je de sommen gaat maken.

$7\frac{2}{5} - 1\frac{4}{5} =$ $6\frac{2}{5} - \frac{4}{5} = 6 - \frac{2}{5} = 5\frac{3}{5}$

$8\frac{4}{9} - 3\frac{7}{9} =$ $5\frac{4}{9} - \frac{7}{9} = 5 - \frac{3}{9} = 4\frac{6}{9} = 4\frac{2}{3}$

$6\frac{4}{11} - 2\frac{10}{11} =$ $4\frac{4}{11} - \frac{10}{11} = 4 - \frac{6}{11} = 3\frac{5}{11}$

$9\frac{3}{10} - 5\frac{6}{10} =$ $4\frac{3}{10} - \frac{6}{10} = 3\frac{7}{10}$

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

$6\frac{5}{7} - 3\frac{6}{7} =$ $3\frac{5}{7} - \frac{6}{7} = 2\frac{6}{7}$

Gelijknamige breuken; sommen -6-

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

$6\frac{1}{7} - 3\frac{4}{7} =$

$7\frac{1}{8} - 5\frac{4}{8} =$

$4\frac{1}{6} - 2\frac{2}{6} =$

$5\frac{6}{9} - 1\frac{8}{9} =$

$8\frac{6}{11} - 5\frac{8}{11} =$

$6\frac{2}{10} - 2\frac{9}{10} =$

$9\frac{1}{13} - 6\frac{3}{13} =$

$9\frac{7}{20} - 5\frac{10}{20} =$

$8\frac{8}{23} - 3\frac{17}{23} =$

$4\frac{4}{7} - 1\frac{5}{7} =$

$7\frac{2}{5} - 4\frac{4}{5} =$

$5\frac{1}{8} - 2\frac{4}{8} =$

$8\frac{3}{9} - 6\frac{5}{9} =$

$5\frac{1}{4} - 2\frac{2}{4} =$

$5\frac{2}{17} - 1\frac{4}{17} =$

$5\frac{1}{13} - 2\frac{3}{13} =$

$4\frac{11}{23} - 1\frac{20}{23} =$

$7\frac{9}{14} - 6\frac{10}{14} =$

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

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

Gelijknamige breuken; sommen -7-

Maak onderstaande sommen en vereenvoudig de breuk in het antwoord.

$1\frac{1}{6} + 2\frac{2}{6} =$

$2\frac{1}{8} + 3\frac{5}{8} =$

$3\frac{2}{9} + 2\frac{4}{9} =$

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

$3\frac{5}{12} + 2\frac{5}{12} =$

$6\frac{7}{15} - 2\frac{1}{15} =$

$5\frac{5}{9} - 3\frac{2}{9} =$

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

$7\frac{5}{6} - 4\frac{3}{6} =$

$5\frac{13}{20} - 2\frac{5}{20} =$

$1\frac{1}{6} + 2\frac{2}{6} =$

Gelijknamige breuken; sommen -8-

Maak onderstaande sommen en vereenvoudig de breuk in het antwoord

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

$2\ \frac{11}{12} + 3\ \frac{4}{12} =$

$3\ \frac{5}{9} + 5\ \frac{7}{9} =$

$4\ \frac{4}{6} + 2\ \frac{5}{6} =$

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

$5\ \frac{3}{16} - 1\ \frac{11}{16} =$

$5\ \frac{1}{25} - 2\ \frac{6}{25} =$

$4\ \frac{11}{18} - 1\ \frac{20}{18} =$

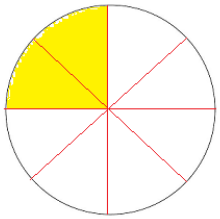
$7\ \frac{9}{14} - 6\ \frac{11}{14} =$

$4\ \frac{5}{9} - 2\ \frac{8}{9} =$

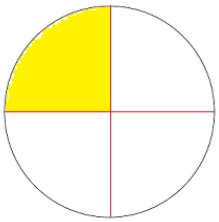
$1\frac{3}{8} + 2\frac{7}{8} =$

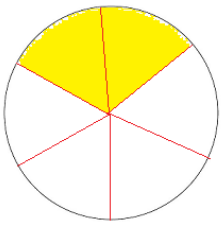
Antwoorden

Welke breuken zijn ook gelijk?

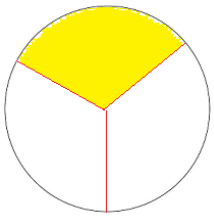


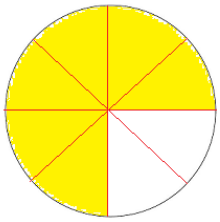
$\frac{2}{8} = \frac{1}{4}$



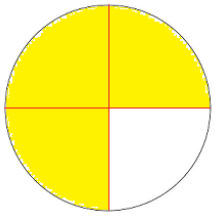


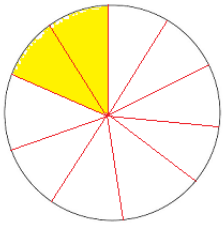
$\frac{2}{6} = \frac{1}{3}$



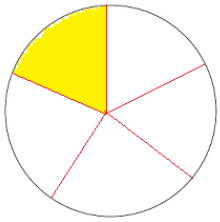


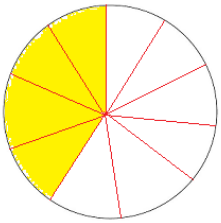
$\frac{6}{8} = \frac{3}{4}$



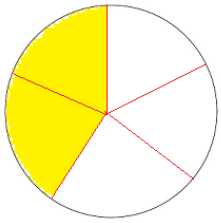


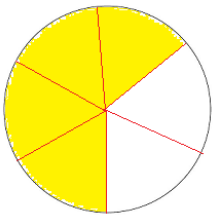
$\frac{2}{10} = \frac{1}{5}$



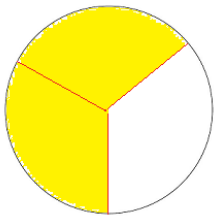


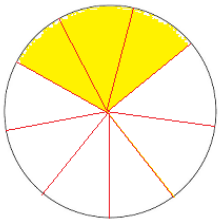
$\frac{4}{10} = \frac{2}{5}$



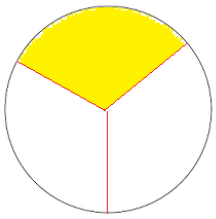


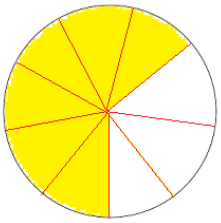
$\frac{4}{6} = \frac{2}{3}$



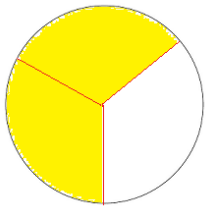


$\frac{3}{9} = \frac{1}{3}$





$\frac{6}{9} = \frac{2}{3}$



Helen eruit…

$\frac{5}{5} = 1$ $\quad$ $\frac{9}{9} = 1$ $\quad$ $\frac{3}{3} = 1$ $\quad$ $\frac{7}{7} = 1$

$\frac{2}{2} = 1$ $\quad$ $\frac{6}{6} = 1$ $\quad$ $\frac{8}{8} = 1$ $\quad$ $\frac{20}{10} = 2$

$\frac{6}{5} = 1\frac{1}{5}$ $\quad$ $\frac{16}{9} = 1\frac{7}{9}$ $\quad$ $\frac{5}{3} = 1\frac{2}{3}$ $\quad$ $\frac{10}{7} = 1\frac{3}{7}$

$\frac{3}{2} = 1\frac{1}{2}$ $\quad$ $\frac{11}{6} = 1\frac{5}{6}$ $\quad$ $\frac{19}{8} = 2\frac{3}{8}$ $\quad$ $\frac{27}{10} = 2\frac{7}{10}$

Antwoorden

Vul de tabel in en vereenvoudig de breuk.

Breuk	Teller	Noemer	In tafel(s)	Delen door	Vereenvoudigde breuk
$\frac{3}{6}$	3	6	3	3	$\frac{1}{2}$
$\frac{16}{24}$	16	24	2 – 4 – 8	8	$\frac{2}{3}$
$\frac{3}{9}$	3	9	3	3	$\frac{1}{3}$
$\frac{2}{8}$	2	8	2	2	$\frac{1}{4}$
$\frac{4}{12}$	4	12	2 – 4	4	$\frac{1}{3}$
$\frac{3}{12}$	3	12	3	3	$\frac{1}{4}$
$\frac{5}{15}$	5	15	5	5	$\frac{1}{3}$
$\frac{12}{18}$	12	18	2 – 3 – 6	6	$\frac{2}{3}$
$\frac{8}{20}$	8	20	2 – 4	4	$\frac{2}{5}$
$\frac{4}{14}$	4	14	2	2	$\frac{2}{7}$
$\frac{4}{6}$	4	6	2	2	$\frac{2}{3}$

Antwoorden

Vereenvoudig onderstaande breuken.

$\frac{2}{4} = \frac{1}{2}$
$\frac{2}{6} = \frac{1}{3}$
$\frac{3}{6} = \frac{1}{2}$
$\frac{4}{6} = \frac{2}{3}$
$\frac{2}{8} = \frac{1}{4}$
$\frac{4}{8} = \frac{1}{2}$
$\frac{6}{8} = \frac{3}{4}$
$\frac{3}{9} = \frac{1}{3}$
$\frac{6}{9} = \frac{2}{3}$
$\frac{2}{10} = \frac{1}{5}$
$\frac{4}{10} = \frac{2}{5}$
$\frac{5}{10} = \frac{1}{2}$

$\frac{6}{10} = \frac{3}{5}$
$\frac{8}{10} = \frac{4}{5}$
$\frac{2}{12} = \frac{1}{6}$
$\frac{3}{12} = \frac{1}{4}$
$\frac{4}{12} = \frac{1}{3}$
$\frac{6}{12} = \frac{1}{2}$
$\frac{8}{12} = \frac{2}{3}$
$\frac{9}{12} = \frac{3}{4}$
$\frac{10}{12} = \frac{5}{6}$
$\frac{2}{14} = \frac{1}{7}$
$\frac{4}{14} = \frac{2}{7}$
$\frac{6}{14} = \frac{3}{7}$

$\frac{7}{14} = \frac{1}{2}$
$\frac{8}{14} = \frac{4}{7}$
$\frac{10}{14} = \frac{5}{7}$
$\frac{12}{14} = \frac{6}{7}$
$\frac{5}{15} = \frac{1}{3}$
$\frac{10}{15} = \frac{2}{3}$
$\frac{3}{18} = \frac{1}{6}$
$\frac{6}{18} = \frac{1}{3}$
$\frac{9}{18} = \frac{1}{2}$
$\frac{15}{18} = \frac{5}{6}$
$\frac{10}{20} = \frac{1}{2}$
$\frac{12}{24} = \frac{1}{2}$

Let op: We kunnen alleen de breuk vereenvoudigen. De helen blijven gelijk: $2\frac{2}{4} = 2\frac{1}{2}$.

$2\frac{2}{4} = 2\frac{1}{2}$
$5\frac{3}{9} = 5\frac{1}{3}$
$3\frac{4}{16} = 3\frac{1}{4}$
$6\frac{2}{6} = 6\frac{1}{3}$

$1\frac{4}{10} = 1\frac{2}{5}$
$7\frac{6}{16} = 7\frac{3}{8}$
$4\frac{9}{12} = 4\frac{3}{4}$
$12\frac{18}{24} = 12\frac{3}{4}$

$11\frac{8}{12} = 11\frac{2}{3}$
$9\frac{6}{9} = 9\frac{2}{3}$
$8\frac{8}{20} = 8\frac{2}{5}$
$10\frac{5}{15} = 10\frac{1}{3}$

Antwoorden

Gelijknamige breuken; sommen -1-

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

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

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

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

$\frac{4}{9} + \frac{3}{9} = \frac{7}{9}$

$\frac{1}{8} + \frac{6}{8} = \frac{7}{8}$

$\frac{1}{10} + \frac{6}{10} = \frac{7}{10}$

$\frac{3}{11} + \frac{7}{11} = \frac{10}{11}$

$\frac{4}{15} + \frac{7}{15} = \frac{11}{15}$

$\frac{7}{13} + \frac{2}{13} = \frac{9}{13}$

$\frac{1}{7} + \frac{4}{7} = \frac{5}{7}$

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

$\frac{1}{8} + \frac{4}{8} = \frac{5}{8}$

$\frac{5}{9} + \frac{2}{9} = \frac{7}{9}$

$\frac{3}{6} + \frac{2}{6} = \frac{5}{6}$

$\frac{1}{11} + \frac{4}{11} = \frac{5}{11}$

$\frac{3}{13} + \frac{8}{13} = \frac{11}{13}$

$\frac{10}{16} + \frac{5}{16} = \frac{15}{16}$

$\frac{3}{71} + \frac{26}{71} = \frac{29}{71}$

$\frac{8}{17} + \frac{8}{17} = \frac{16}{17}$

Gelijknamige breuken; sommen -2-

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

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

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

$\frac{6}{7} - \frac{3}{7} = \frac{3}{7}$

$\frac{8}{9} - \frac{3}{9} = \frac{5}{9}$

$\frac{7}{8} - \frac{6}{8} = \frac{1}{8}$

$\frac{9}{10} - \frac{6}{10} = \frac{3}{10}$

$\frac{10}{11} - \frac{7}{11} = \frac{3}{11}$

$\frac{9}{15} - \frac{7}{15} = \frac{2}{15}$

$\frac{7}{13} - \frac{2}{13} = \frac{5}{13}$

$\frac{5}{7} - \frac{4}{7} = \frac{1}{7}$

$\frac{4}{5} - \frac{2}{5} = \frac{2}{5}$

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

$\frac{7}{9} - \frac{2}{9} = \frac{5}{9}$

$\frac{3}{6} - \frac{2}{6} = \frac{1}{6}$

$\frac{6}{11} - \frac{4}{11} = \frac{2}{11}$

$\frac{12}{13} - \frac{8}{13} = \frac{4}{13}$

$\frac{12}{16} - \frac{5}{16} = \frac{7}{16}$

$\frac{53}{71} - \frac{26}{71} = \frac{27}{71}$

$\frac{14}{17} - \frac{8}{17} = \frac{6}{17}$

Antwoorden

Gelijknamige breuken; sommen -3-

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

$2\frac{2}{7} + 3\frac{4}{7} = 5\frac{6}{7}$

$3\frac{3}{8} + 2\frac{2}{8} = 5\frac{5}{8}$

$4\frac{4}{6} + 4\frac{1}{6} = 8\frac{5}{6}$

$5\frac{5}{9} + 2\frac{3}{9} = 7\frac{8}{9}$

$6\frac{6}{11} + 5\frac{4}{11} = 11\frac{10}{11}$

$7\frac{7}{10} + 2\frac{2}{10} = 9\frac{9}{10}$

$8\frac{8}{13} + 6\frac{3}{13} = 14\frac{11}{13}$

$9\frac{9}{20} + 2\frac{10}{20} = 11\frac{19}{20}$

$3\frac{10}{23} + 7\frac{7}{23} = 10\frac{17}{23}$

$2\frac{4}{7} + 5\frac{2}{7} = 7\frac{6}{7}$

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

$2\frac{3}{8} + 6\frac{2}{8} = 8\frac{5}{8}$

$2\frac{4}{11} + 3\frac{5}{11} = 5\frac{9}{11}$

$2\frac{1}{4} + 8\frac{2}{4} = 10\frac{3}{4}$

$2\frac{5}{17} + 1\frac{1}{17} = 3\frac{6}{17}$

$2\frac{6}{13} + 7\frac{3}{13} = 9\frac{9}{13}$

$2\frac{1}{23} + 5\frac{2}{23} = 7\frac{3}{23}$

$2\frac{5}{14} + 9\frac{4}{14} = 11\frac{9}{14}$

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

Antwoorden

Gelijknamige breuken; sommen -4-

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

$5\frac{6}{7} - 3\frac{4}{7} = 2\frac{2}{7}$

$8\frac{3}{8} - 2\frac{2}{8} = 6\frac{1}{8}$

$7\frac{4}{6} - 4\frac{3}{6} = 3\frac{1}{6}$

$5\frac{5}{9} - 2\frac{3}{9} = 3\frac{2}{9}$

$6\frac{6}{11} - 5\frac{4}{11} = 1\frac{2}{11}$

$7\frac{7}{10} - 2\frac{4}{10} = 5\frac{3}{10}$

$8\frac{8}{13} - 6\frac{3}{13} = 2\frac{5}{13}$

$9\frac{19}{20} - 2\frac{10}{20} = 7\frac{9}{20}$

$9\frac{10}{23} - 7\frac{7}{23} = 2\frac{3}{23}$

$8\frac{4}{7} - 5\frac{2}{7} = 3\frac{2}{7}$

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

$7\frac{3}{8} - 6\frac{2}{8} = 1\frac{1}{8}$

$5\frac{7}{11} - 3\frac{5}{11} = 2\frac{2}{11}$

$9\frac{3}{4} - 8\frac{2}{4} = 1\frac{1}{4}$

$3\frac{5}{17} - 1\frac{1}{17} = 2\frac{4}{17}$

$8\frac{6}{13} - 7\frac{3}{13} = 1\frac{3}{13}$

$8\frac{11}{23} - 5\frac{2}{23} = 3\frac{9}{23}$

$5\frac{5}{14} - 1\frac{4}{14} = 4\frac{1}{14}$

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

Antwoorden

Gelijknamige breuken; sommen -5-

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

$2\frac{6}{7} + 3\frac{4}{7} = 5\frac{10}{7} = 6\frac{3}{7}$

$3\frac{5}{8} + 5\frac{4}{8} = 8\frac{9}{8} = 9\frac{1}{8}$

$4\frac{4}{6} + 2\frac{3}{6} = 6\frac{7}{6} = 7\frac{1}{6}$

$5\frac{6}{9} + 1\frac{4}{9} = 6\frac{10}{9} = 7\frac{1}{9}$

$2\frac{6}{11} + 5\frac{8}{11} = 7\frac{14}{11} = 8\frac{3}{11}$

$1\frac{4}{10} + 2\frac{9}{10} = 3\frac{13}{10} = 4\frac{3}{10}$

$1\frac{12}{13} + 6\frac{3}{13} = 7\frac{15}{13} = 8\frac{2}{13}$

$3\frac{17}{20} + 5\frac{10}{20} = 8\frac{27}{20} = 9\frac{7}{20}$

$1\frac{8}{23} + 3\frac{17}{23} = 4\frac{25}{23} = 5\frac{2}{23}$

$4\frac{4}{7} + 1\frac{5}{7} = 5\frac{9}{7} = 6\frac{2}{9}$

$3\frac{3}{5} + 4\frac{4}{5} = 7\frac{7}{5} = 8\frac{2}{5}$

$5\frac{7}{8} + 2\frac{4}{8} = 7\frac{11}{8} = 8\frac{3}{8}$

$1\frac{9}{11} + 6\frac{5}{11} = 7\frac{14}{11} = 8\frac{3}{11}$

$5\frac{3}{4} + 2\frac{2}{4} = 7\frac{5}{4} = 8\frac{1}{4}$

$5\frac{15}{17} + 1\frac{4}{17} = 6\frac{19}{17} = 7\frac{2}{17}$

$5\frac{11}{13} + 7\frac{3}{13} = 12\frac{14}{13} = 13\frac{1}{13}$

$4\frac{11}{23} + 5\frac{20}{23} = 9\frac{31}{23} = 10\frac{8}{23}$

$1\frac{12}{14} + 6\frac{11}{14} = 7\frac{23}{14} = 8\frac{9}{14}$

$2\frac{5}{9} + 2\frac{5}{9} = 4\frac{10}{9} = 5\frac{1}{9}$

Antwoorden

Gelijknamige breuken; sommen -6-

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

$6\frac{1}{7} - 3\frac{4}{7} = 3\frac{1}{7} - \frac{4}{7} = 2\frac{4}{7}$

$7\frac{1}{8} - 5\frac{4}{8} = 2\frac{1}{8} - \frac{4}{8} = 1\frac{5}{8}$

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

$5\frac{6}{9} - 1\frac{8}{9} = 4\frac{6}{9} - \frac{8}{9} = 3\frac{7}{9}$

$8\frac{6}{11} - 5\frac{8}{11} = 2\frac{9}{11}$

$6\frac{2}{10} - 2\frac{9}{10} = 3\frac{3}{10}$

$9\frac{1}{13} - 6\frac{3}{13} = 2\frac{11}{13}$

$9\frac{7}{20} - 5\frac{10}{20} = 3\frac{17}{20}$

$8\frac{8}{23} - 3\frac{17}{23} = 4\frac{14}{23}$

$4\frac{4}{7} - 1\frac{5}{7} = 3\frac{4}{7} - \frac{5}{7} = 2\frac{6}{7}$

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

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

$8\frac{3}{9} - 6\frac{5}{9} = 2\frac{3}{9} - \frac{5}{9} = 1\frac{7}{9}$

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

$5\frac{2}{17} - 1\frac{4}{17} = 3\frac{15}{17}$

$5\frac{1}{13} - 2\frac{3}{13} = 2\frac{11}{13}$

$4\frac{11}{23} - 1\frac{20}{23} = 2\frac{14}{23}$

$7\frac{9}{14} - 6\frac{10}{14} = \frac{13}{14}$

$4\frac{5}{9} - 2\frac{7}{9} = 1\frac{7}{9}$

Antwoorden

Gelijknamige breuken; sommen -7-

$1\frac{1}{6} + 2\frac{2}{6} = 3\frac{3}{6} = 3\frac{1}{2}$

$2\frac{1}{8} + 3\frac{5}{8} = 5\frac{6}{8} = 5\frac{3}{4}$

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

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

$3\frac{5}{12} + 2\frac{5}{12} = 5\frac{10}{12} = 5\frac{5}{6}$

$6\frac{7}{15} - 2\frac{1}{15} = 4\frac{6}{15} = 4\frac{2}{5}$

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

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

$7\frac{5}{6} - 4\frac{3}{6} = 3\frac{2}{6} = 3\frac{1}{3}$

$5\frac{13}{20} - 2\frac{5}{20} = 3\frac{8}{20} = 3\frac{2}{5}$

Antwoorden

Gelijknamige breuken; sommen -8-

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

$2\frac{11}{12} + 3\frac{4}{12} = 5\frac{15}{12} = 6\frac{3}{12} = 6\frac{1}{4}$

$3\frac{5}{9} + 5\frac{7}{9} = 8\frac{12}{9} = 9\frac{3}{9} = 9\frac{1}{3}$

$4\frac{4}{6} + 2\frac{5}{6} = 6\frac{9}{6} = 7\frac{3}{6} = 7\frac{1}{2}$

$5\frac{3}{4} + 1\frac{3}{4} = 6\frac{6}{4} = 7\frac{2}{4} = 7\frac{1}{2}$

$5\frac{3}{16} - 1\frac{11}{16} = 4\frac{3}{16} - \frac{11}{16} = 4 - \frac{8}{16} = 3\frac{8}{16} = 3\frac{1}{2}$

$5\frac{1}{25} - 2\frac{6}{25} = 3\frac{1}{25} - \frac{6}{25} = 3 - \frac{5}{25} = 2\frac{20}{25} = 2\frac{4}{5}$

$4\frac{11}{18} - 1\frac{20}{18} = 3\frac{11}{18} - \frac{20}{18} = 3 - \frac{9}{18} = 2\frac{9}{18} = 2\frac{1}{2}$

$7\frac{9}{14} - 6\frac{11}{14} = 1\frac{9}{14} - \frac{11}{14} = 1 - \frac{2}{14} = \frac{12}{14} = \frac{6}{7}$

$4\frac{5}{9} - 2\frac{8}{9} = 2\frac{5}{9} - \frac{8}{9} = 2 - \frac{3}{9} = 1\frac{6}{9} = 1\frac{2}{3}$

Aantekeningen

Aantekeningen