8.1.5
①

Gr 8 Wiskunde / Mathematics

BREUKE / FRACTIONS (1)

- Ek leer my kids om altyd die gemengde breuke om te skakel na onegte breuke $2\frac{1}{2} = \frac{5}{2}$
- I teach all my kids to convert any mixed fraction to an improper fraction $2\frac{1}{2} = \frac{5}{2}$

HERSIENING / REVISION

1. $3\frac{1}{3} + 2\frac{1}{5}$ (1 × 3 + 1; 2 × 5 + 1)

$3 \times 3 = 9 + 1 = 10$

$2 \times 5 = 10 + 1 = 11$

- Kry onder (noemer) dieselfde
  Get denominators (bottom) the same.

$= \frac{10}{3} + \frac{11}{5}$

$= \frac{10 \times 5}{3 \times 5} + \frac{11 \times 3}{5 \times 3}$

$= \frac{50}{15} + \frac{33}{15}$

$= \frac{83}{15}$

$= 5\frac{8}{15}$

vereenvoudig / simplify!

2. $4 - 2\frac{1}{8} + \frac{2}{3}$

- Maak alles breuke $4 = \frac{4}{1}$
- Make everything fractions

$= \frac{4 \times 24}{1 \times 24} - \frac{17 \times 3}{8 \times 3} + \frac{2 \times 8}{3 \times 8}$

$= \frac{96}{24} - \frac{51}{24} + \frac{16}{24}$

$= \frac{96 - 51 + 16}{24}$

$= \frac{61}{24}$

$= 2\frac{13}{24}$

Hoe kry jy die KGV? How to get the LCM

↳ Kleinste Gemeenskaplike Veelvoud ↳ Lowest Common Multiple

- $\frac{1}{3} + \frac{2}{4} - \frac{1}{12}$

$\frac{}{12} + \frac{}{12} - \frac{}{12}$

3 ; 6 ; 9 ; (12) ; 15 ...

4 ; 8 ; (12) ; 16 ; 20 ...

(12) ; 24 ; 36 ...

8.1.5
②

Met + en − → Kry noemers gelyk
With + and − → Get denominators equal

... KGV LCM ...

Met X → "Gaan ma(a)l" X kanselleer
With X → "Go crazy" / Cross X out

3. $\frac{1}{2}\times\frac{3}{3} + \frac{2}{3}\times\frac{2}{2}$ KGV LCM : 6

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

$= \frac{7}{6}$

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

$\frac{1}{2} \times \frac{2}{3}$

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

$= \frac{1}{3}$

OF / OR

$\frac{1}{2} \times \frac{2}{3}$

$= \frac{2}{6}$

$= \frac{1}{3}$

4. $3\frac{1}{5} \times \frac{15}{8}$ # convert

$= \frac{16}{5} \times \frac{15}{8}$ # crossout.

$= \frac{\cancel{16}^{2}}{\cancel{5}_{1}} \times \frac{\cancel{15}^{3}}{\cancel{8}_{1}}$

$= \frac{6}{1}$

$= 6$

Volgorde / Order of Operation

1. ( )
2. exp / $\sqrt{}$
3. "of" / "van"
4. X , ÷
5. + , −

5. $2\frac{1}{2} + 1\frac{2}{3} \times \frac{2}{5}$

$= \frac{5}{2} + \frac{\cancel{5}}{3} \times \frac{2}{\cancel{5}}$

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

$= \frac{15}{6} + \frac{4}{6}$

$= \frac{19}{6}$

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