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①

# Gr 8 Wiskunde / Mathematics

# Breuke / Fractions (3)

## 1. Deel met breuke / Divide by fractions

↳ Kyk eers na : ↳ First look at:

$4 \boxed{\div 2} = (2)$

↳ maak alles breuke : ↳ Make fractions :

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

↳ maar ↳ but

selfde! $4 \boxed{\times \frac{1}{2}} = (2)$ same!

↳ Maak dit maklik en ... ↳ Make it easy and ...

FLIP-EN-MAAL

↕ X

↳ Enige som met ÷ breuk → flip-en-maal

Any sum with ÷ fraction → flip-en-maal

a) $\frac{3}{5} \div \frac{2}{5}$
$= \frac{3}{5} \times \frac{5}{2}$

b) $\frac{10}{12} \div \frac{1}{2}$
$= \frac{10}{12} \times \frac{2}{1}$

c) $\frac{22}{3} \div \frac{2}{9}$
$= \frac{22}{3} \times \frac{9}{2}$

d) $\frac{17}{15} \div \frac{12}{5}$
$= \frac{17}{15} \times \frac{5}{12}$

e) $\frac{2}{3} \div \frac{4}{5} \times \frac{6}{5}$
$= \frac{2}{3} \times \frac{5}{4} \times \frac{6}{5}$

(These questions are not done! Die vrae is nie klaar nie.)

VEREENVOUDIG ALTYD / ALWAYS SIMPLIFY

Vb 1) $\frac{1}{4} \div \frac{1}{2}$
$= \frac{1}{4} \times \frac{2}{1}$
$= \frac{2}{4}$
$= \frac{1}{2}$

2) $\frac{5}{3} \div \frac{15}{6}$
$= \frac{5}{3} \times \frac{6}{15}$
$= \frac{5 \times 6^{2}}{3 \times 15_{3}}$
$= \frac{2}{3}$

3) $\frac{3}{5} \div \frac{-6}{25}$
$= \frac{3}{5} \times \frac{25}{-6}$
$= \frac{3 \times 25^{5}}{5 \times -6_{2}}$
$= -\frac{5}{2}$
$= -2\frac{1}{2}$

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

Skakel $-2\frac{1}{4}$ om
Convert $-2\frac{1}{4}$

$-2\frac{1}{4}$) +
x

$= -\frac{9}{4} \div \frac{4}{1}$

$= -\frac{9}{4} \times \frac{1}{4}$

$= \frac{-9}{16}$

5) $-8\frac{1}{3} \div 12\frac{1}{2}$

Skakel om
Convert

$= \frac{-25}{3} \div \frac{25}{2}$

$= \frac{-25}{3} \times \frac{2}{25}$

$= \frac{-25 \times 2}{3 \times 25}$

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

6) $\frac{3a^2}{4} \div \frac{6a^2}{4}$

$= \frac{3a^2}{4} \times \frac{4}{6a^2}$

$= \frac{3a^2 \times 4}{4 \times 6a^2}$

$= \frac{3}{6}$

$= \frac{1}{2}$

Om ÷ na x te verander is die 2de stap. Skakel eers om.

To change ÷ to x is the 2nd step. Convert first.

## Kombinasies | Combinations

$$\frac{(-4x^2y^4)(2x^3y^3)}{(-2xy)^2} \div \frac{xy^4}{4}$$

$$= \frac{(-4x^2y^4)(2x^3y^3)}{(-2xy)^2} \times \frac{4}{xy^4}$$

$$= \frac{-8x^5y^7}{4x^2y^2} \times \frac{4}{xy^4}$$

$$= -8x^{5-2-1}y^{7-2-4}$$

$$= -8x^2y$$

1. X ↕

2. Breuke bo klaar
Breuke onder klaar
Kombineer
1st Top part
Then bottom part
Combine