8.1.2 ①

Gr 8 Wiskunde / Mathematics

Telgetalle / Whole Numbers (2)

1. Produk van priemfaktore / Product of prime factors

"Leertjie" "Ladder"

a) 36

2 ←	36
2	18
3	9
3	3
	1 ✓

$= 2 \times 2 \times 3 \times 3$

$= 2^2 \times 3^2$

1. Skryf getal neer en trek 'n lyn links af
   Write the number down and draw a line on the left.
2. Kry kleinste priemgetal wat in 36 kan indeel = (2)
   Find the smallest prime number that can divide into 36 = (2)
3. $36 \div 2 = 18$
4. Herhaal stappe 2. en 3.
   Repeat steps 2. and 3.

"When you get to one, you're done"

b) 84

2 ←	84
2	42
3	21
7	7
	1 ✓

$= 2 \times 2 \times 3 \times 7$

$= 2^2 \times 3 \times 7$

CASIO "check"
8 4 =
O SHIFT FACT 999

2. KGV en GGF / LCM and HCF

Jy gaan bogenoemde antwoorde gebruik
You will be using above methods for this

8.1.2
(2)

KGV en GGF van 36 en 84
LCM and HCF of 36 and 84

a)

2	36
2	18
3	9
3	3
	1

$= 2 \times 2 \times 3 \times 3$
$= 2^{2} \times 3^{2}$

2	84
2	42
3	21
7	7
	1

$= 2 \times 2 \times 3 \times 7$
$= 2^{2} \times 3 \times 7^{1}$

KGV = $2 \times 2 \times 3$
LCM = 12

GGF = $2^{2} \times 3^{2} \times 7^{1}$
HCF = 252

Omkring al die getalle wat by albei voorkom
Circle all numbers that is in both of them

Skryf AL die verskillende grondtalle neer, kies hoogste eksponente
Write down ALL different bases and choose highest exponent.

b) 216 and 810

2	216
2	108
2	54
3	27
3	9
3	3
	1

$= 2 \times 2 \times 2 \times 3 \times 3 \times 3$
$= 2^{3} \times 3^{3}$

2	810
3	405
3	135
3	45
3	15
5	5
	1

$= 2 \times 3 \times 3 \times 3 \times 3 \times 5$
$= 2 \times 3^{4} \times 5^{1}$

8.1.2

③

KGV = $2 \times 3 \times 3 \times 3$

LCM = 54

GGF = $2^3 \times 3^4 \times 5^1$

HCF = 3240