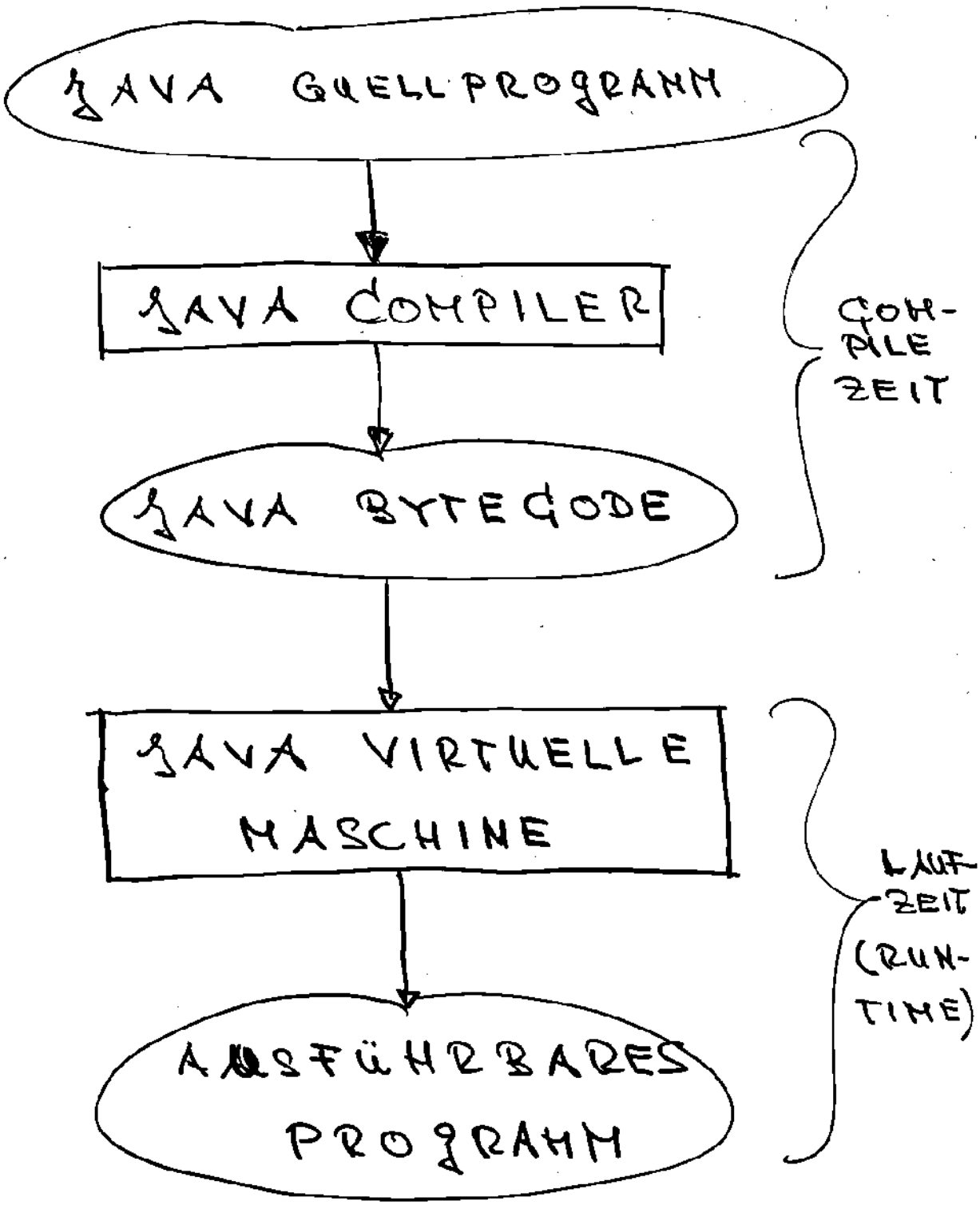
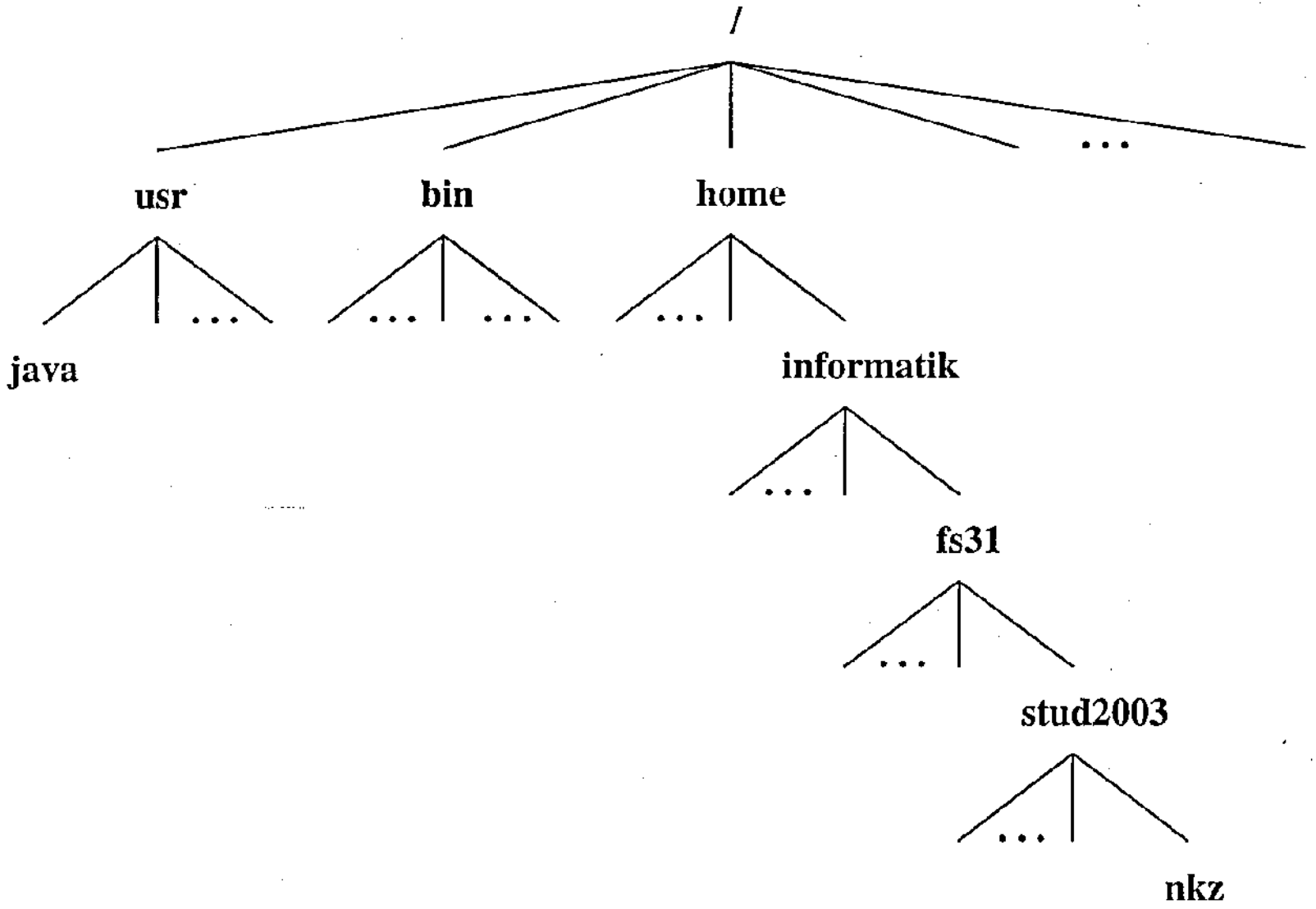
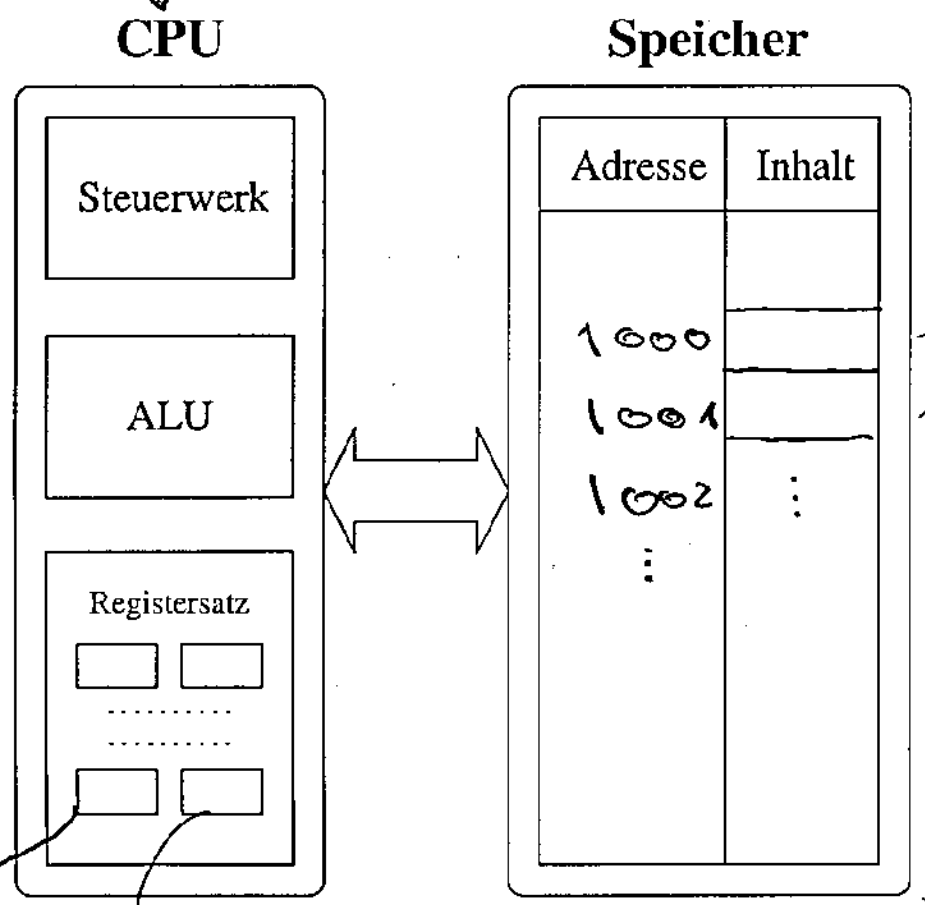

JAVA QUELLPROGRAMM
JAVA COMPILER
JAVA BYTECODE
JAVA VIRTUELLE MASCHINE
AUSFÜHRBARES PROGRAMM
COMPILE ZEIT
LAUF-ZEIT (RUN-TIME)

Diese Seite mußte aus rechtlichen Gründen entfernt werden!


/
...
usr
bin
home
...
...
...
java
informatik
...
fs31
...
stud2003
...
nkz

PROZESSOR



ARITHMETISCH LOGISCHE EINHEIT (UNIT)

HIER WIRD GESPEICHERT.

NUR TEMPORÄR

NICHT PERMANENT.

FESTPLATTE PERMANENT

PC (PROGRAM COUNTER)

von Neumann Architektur

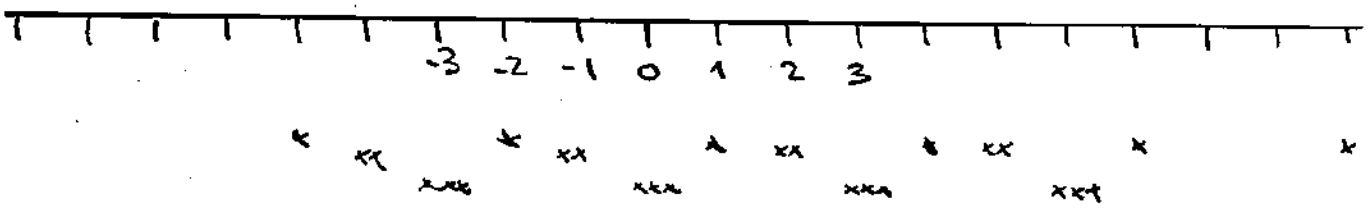
IR (INSTR. REG) ZUSAMMEN: ZENTRALEINHEIT.

PROGRAMM

```
LOAD   5000
ADD    1005
STORE  2000
```

DANN HAUPTSPEICHER ETWA

ADRESSE	INHALT
0	...
1	...
2	...
⋮	
1000	LOAD 5000
1001	ADD 1005
1002	STORE 2000
⋮	
1005	...
⋮	
5000	...



$x = 3 \cdot \mathbb{Z} + 1 = \{3 \cdot A + 1 \mid A \in \mathbb{Z}\}$

$xx = 3 \cdot \mathbb{Z} + 2$

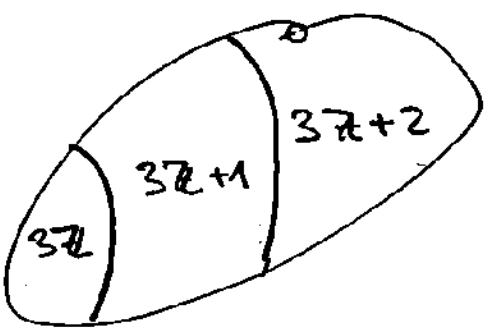
$xxx = 3 \cdot \mathbb{Z}$

$\mathbb{Z} = 3 \cdot \mathbb{Z} \dot{\cup} 3 \cdot \mathbb{Z} + 1 \dot{\cup} 3 \cdot \mathbb{Z} + 2$

$\cup$ = VEREINIGUNG

$\dot{\cup}$ = DISJUNKTE VEREINIGUNG

KEINE GEMEINSAMEN ELEMENTE
(JE ZWEI $\Rightarrow$ SCHNITT LEER)

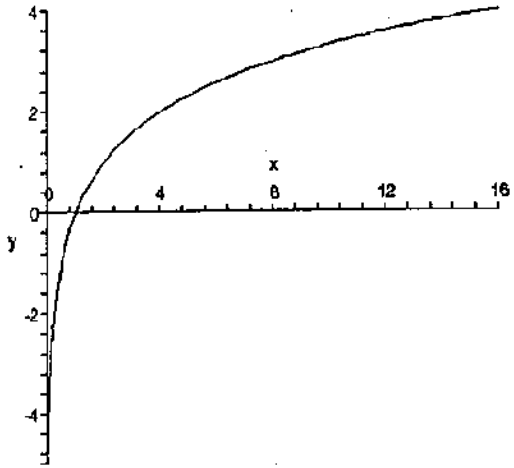


$\mathbb{Z}$

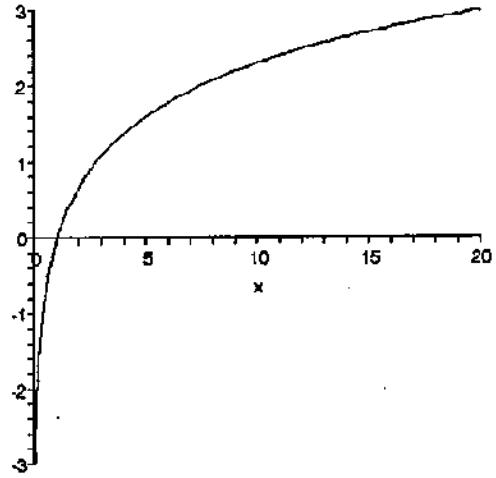
PARTITION VON $\mathbb{Z}$.

Logarithmusfunktionen

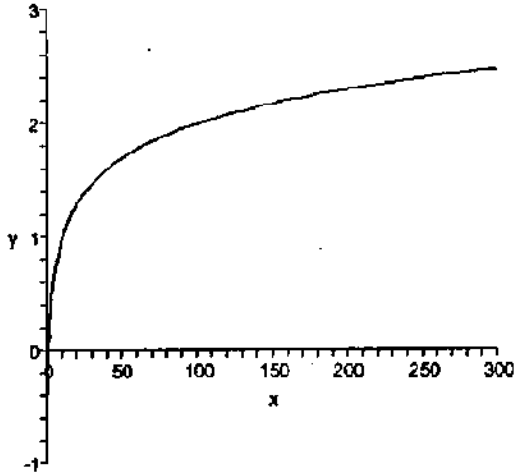
Dyadischer Logarithmus



Natürlicher Logarithmus



Dekadischer Logarithmus



$\log_c a = (\log_c b) \cdot (\log_b a)$ (n-mal)

$\log_b a = n \Leftrightarrow a = b \cdot b \cdot b \cdot \ldots \cdot b$ (n-mal)

Logarithmengesetze:

$\log_a a = 1$

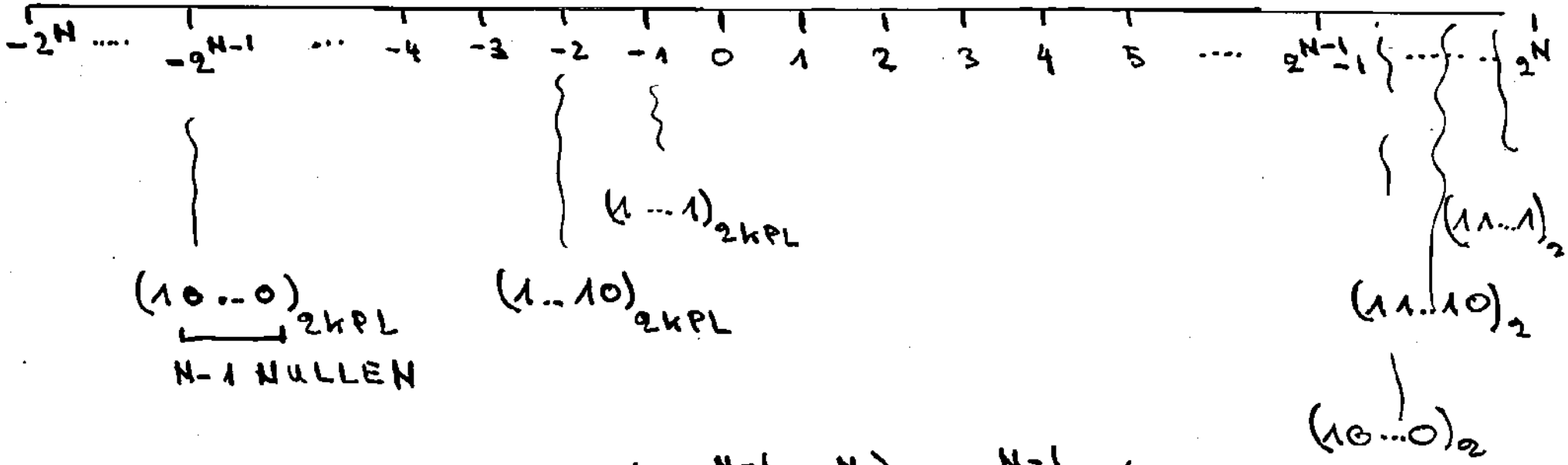
$\log 1 = 0$

$\log(ab) = \log a + \log b$

$\log\frac{a}{b} = \log a - \log b \quad (a>0, b>0)$

$\log a^n = n \cdot \log a$

$\log\sqrt[n]{a} = \frac{1}{n} \cdot \log a$



ES IST $\quad MOD(-2^{N-1}, 2^N) = 2^{N-1} = (10..0)_2$

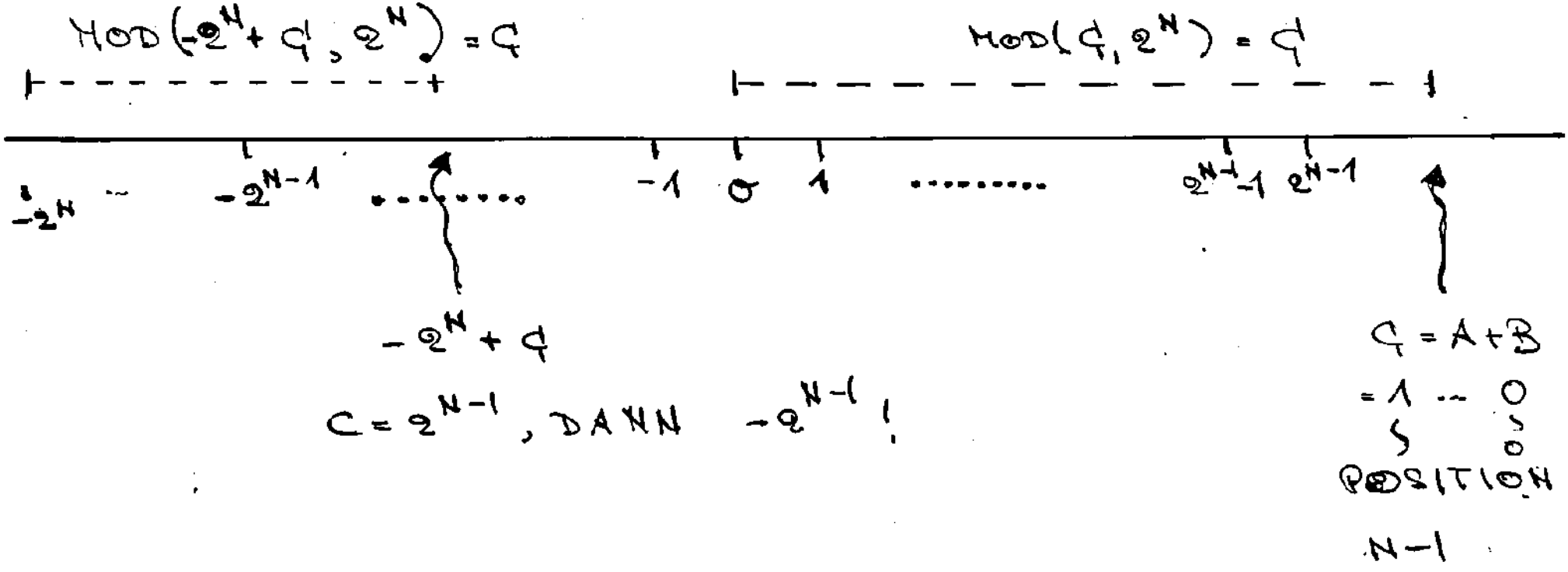
$\vdots$

$MOD(-1, 2^N) = 2^N - 1 = (1...1)_2$

2'ER KOMPLEMENT

2'ER KOMPLEMENT

$A \geq 0,\ B \geq 0,\ C = A + B \leq 2^{N-1} - 1$



Sign	Exponent (e)	Fraction (f)	Value
0	00..00	00..00	+0
0	00..00	00..01 : 11..11	Positive Denormalized Real $0.f \times 2^{(-b+1)}$
0	00..01 : 11..10	XX..XX	Positive Normalized Real $1.f \times 2^{(e-b)}$
0	11..11	00..00	+Infinity
0	11..11	00..01 : 01..11	SNaN
0	11..11	10..00 : 11..11	QNaN
1	00..00	00..00	-0
1	00..00	00..01 : 11..11	Negative Denormalized Real $-0.f \times 2^{(-b+1)}$
1	00..01 : 11..10	XX..XX	Negative Normalized Real $-1.f \times 2^{(e-b)}$
1	11..11	00..00	-Infinity
1	11..11	00..01 : 01..11	SNaN
1	11..11	10..00 : 11.11	QNaN