

BINOMIALER BAUM MIT

HEAPEIGENSCHAFT UND DIREKTEN ADRESSEN
GESPEICHERTES ELEMENT

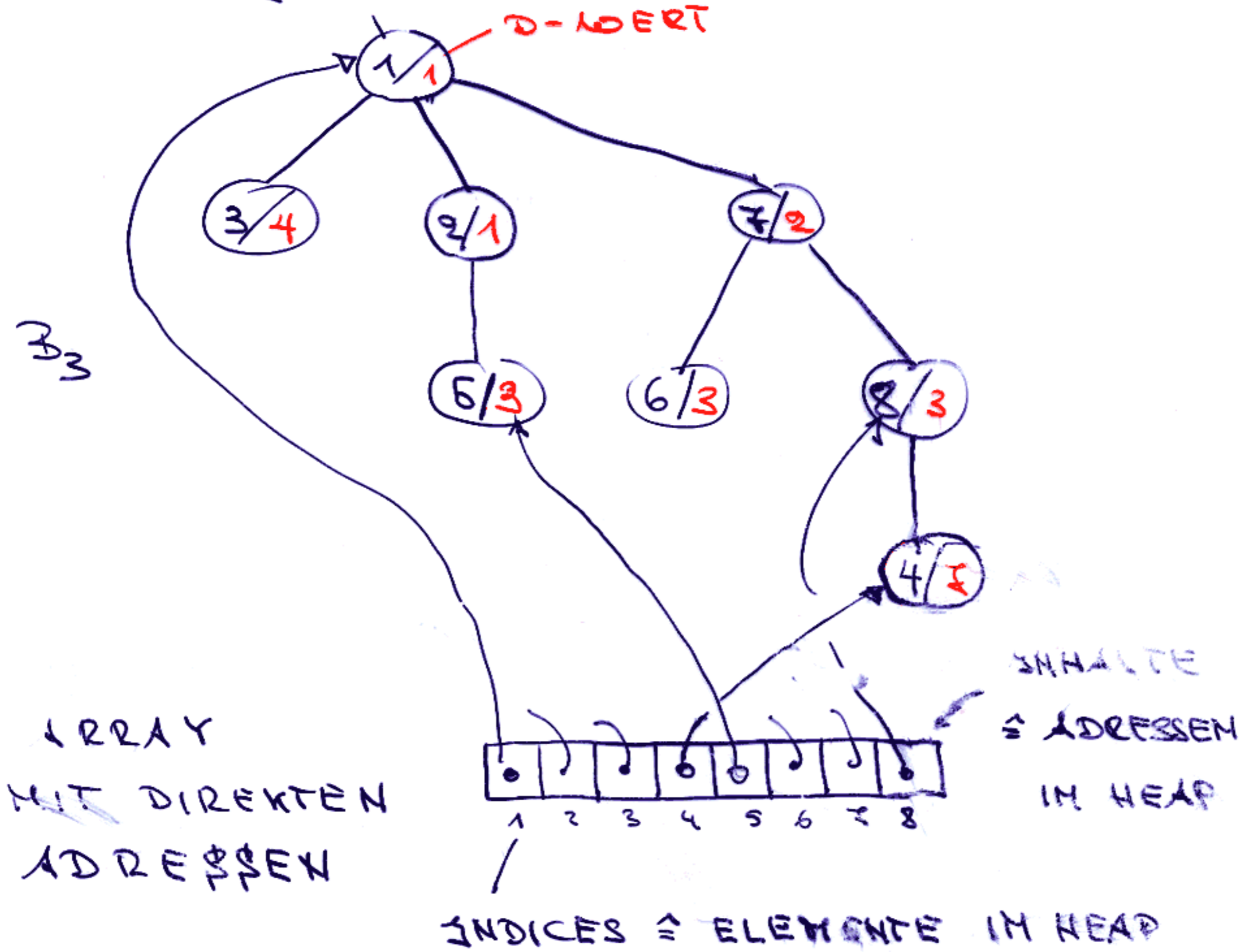
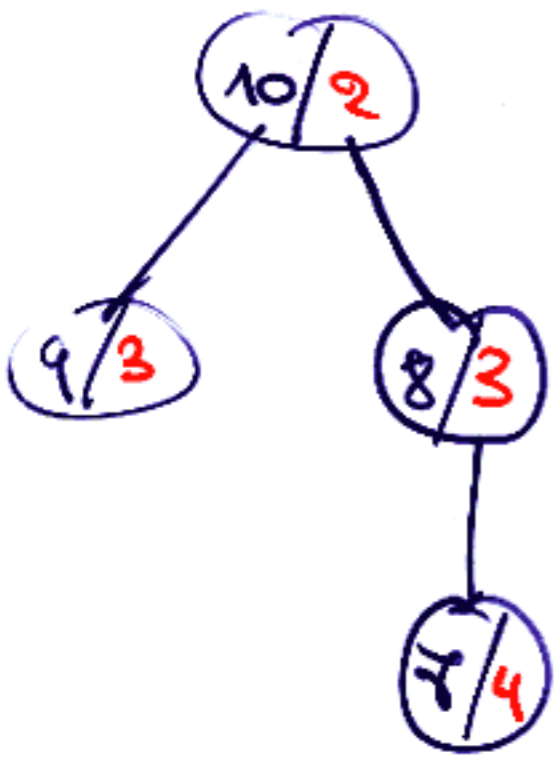
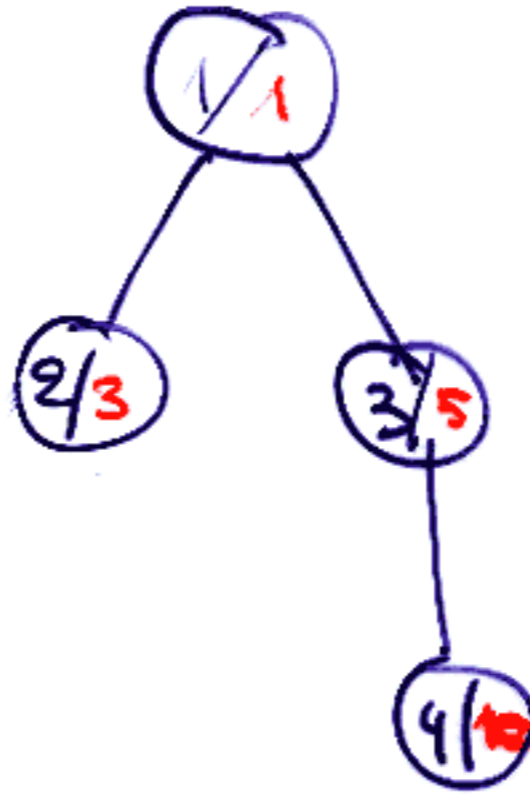


BILD 1

ZWEI 2-TE BINOMIALE BÄUME:



B



G



LINK(B, G)
 B UNTER G WQ.
 KEIN EIGEN SCHAFT.

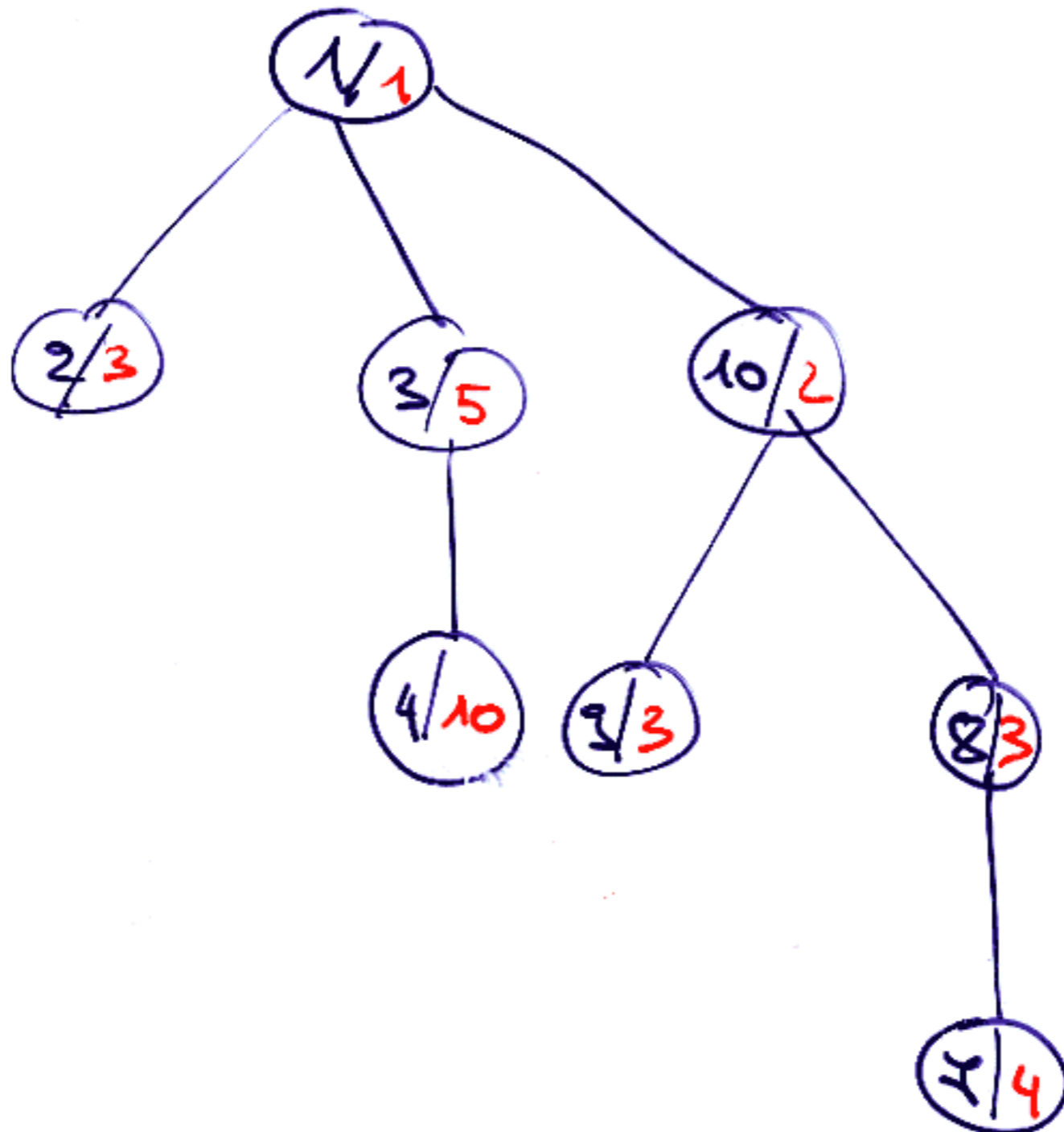
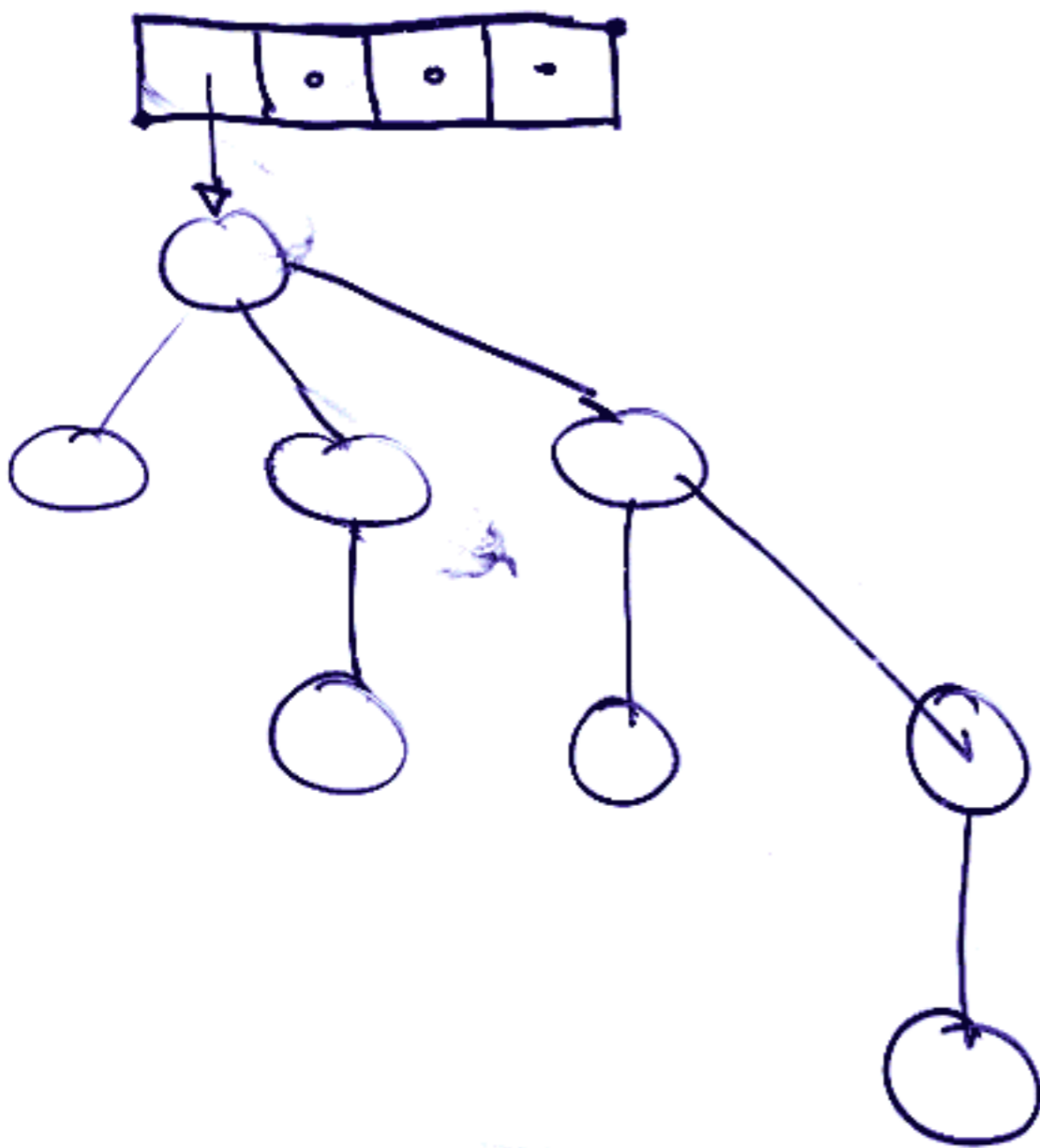
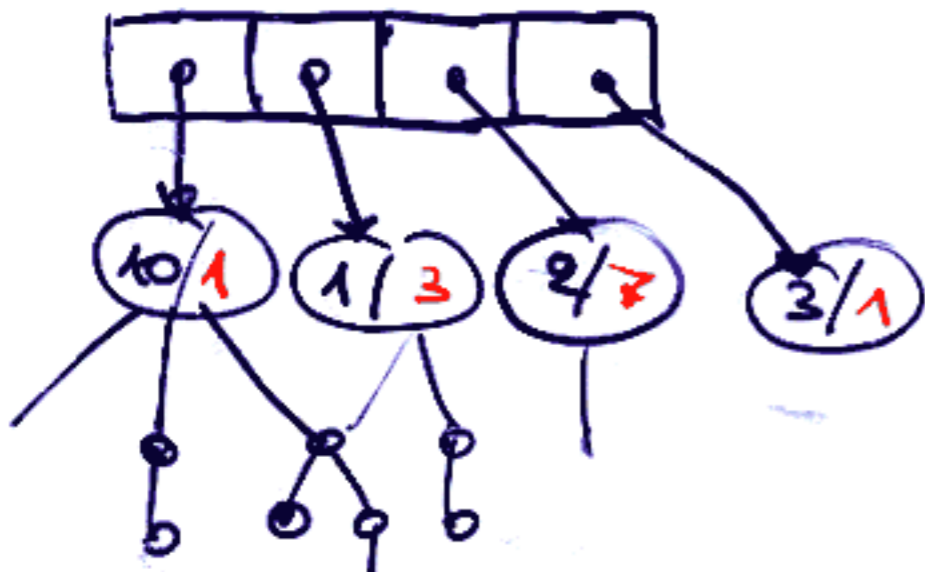


BILD 2



$HIN = 3$, $HEAPSIZE = 3$

$$|h| = 8 = 2^3.$$

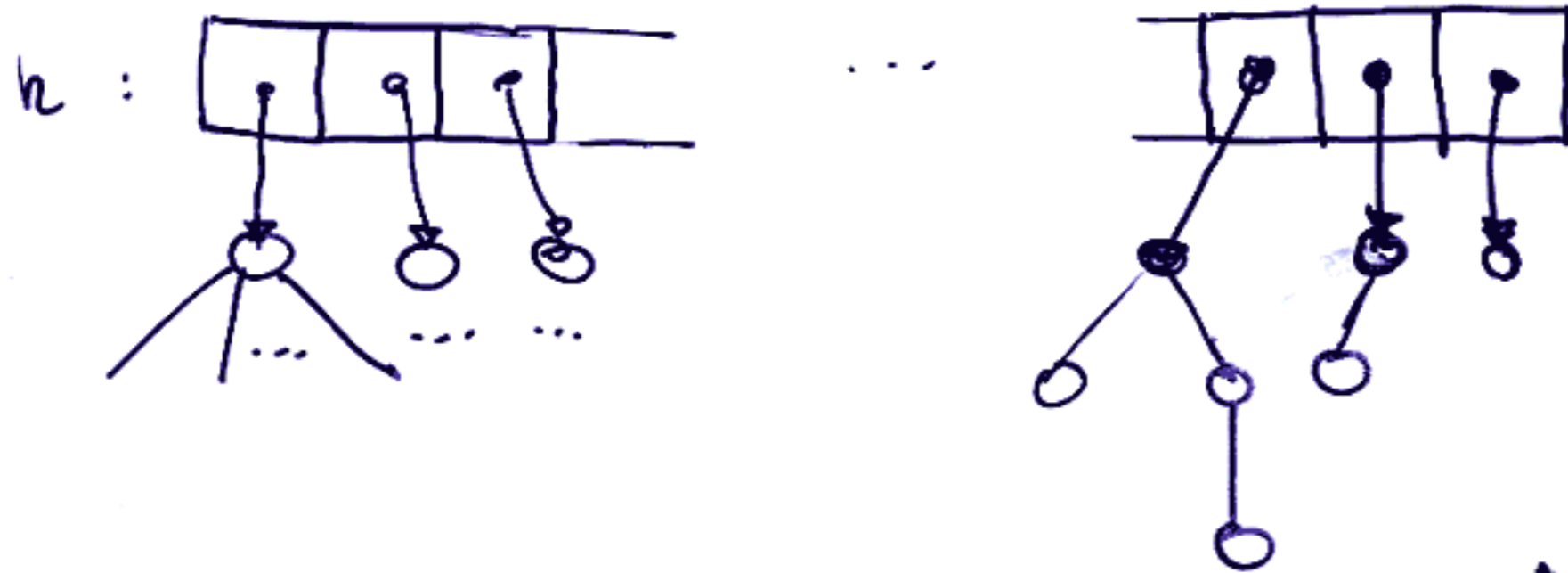


$HIN = 1$, $HEAPSIZE = 3$

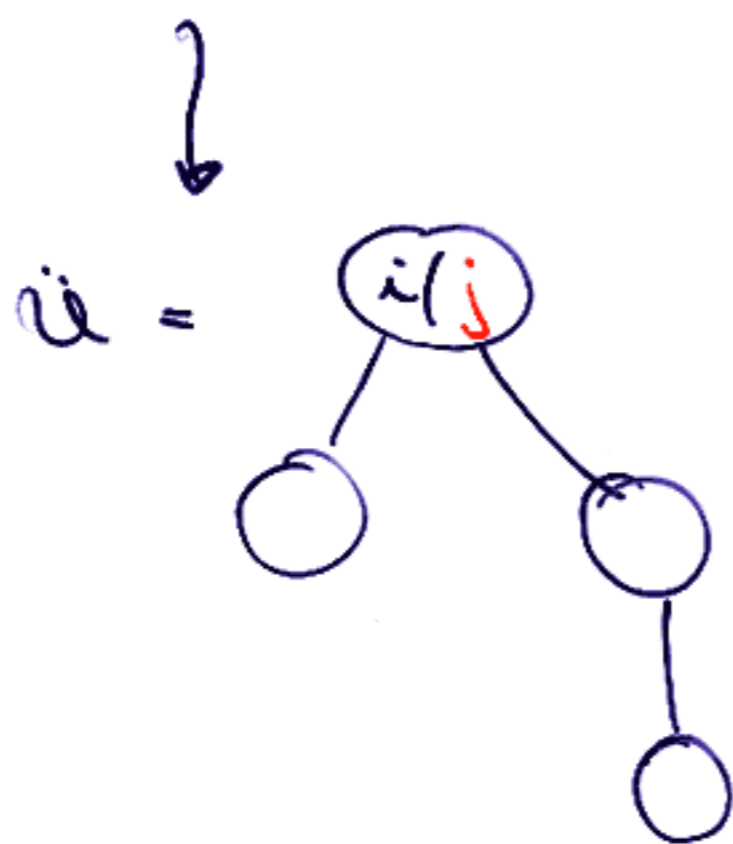
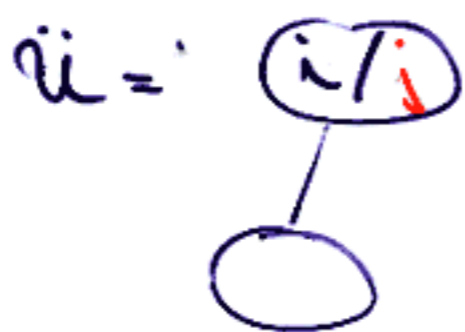
$$|h| = 2^3 + 2^2 + 2^1 + 1 = 2 \cdot 2^3 - 1.$$

INSERT(i, j, h) BRAUCHT TATSÄCHLICH

$\Omega(\log m)$, $m = |h|$:

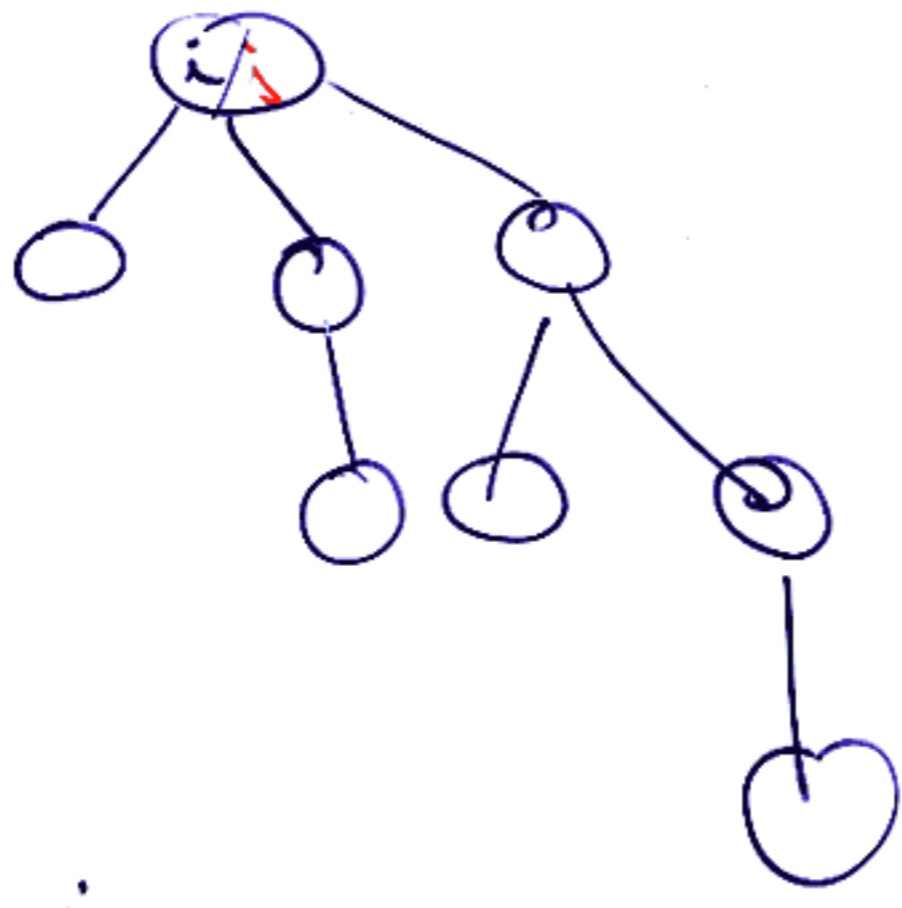


INSERT(x, j, h)
HELD($h, \text{MAKEHEAP}(i, j)$)





$\tilde{u} =$



...

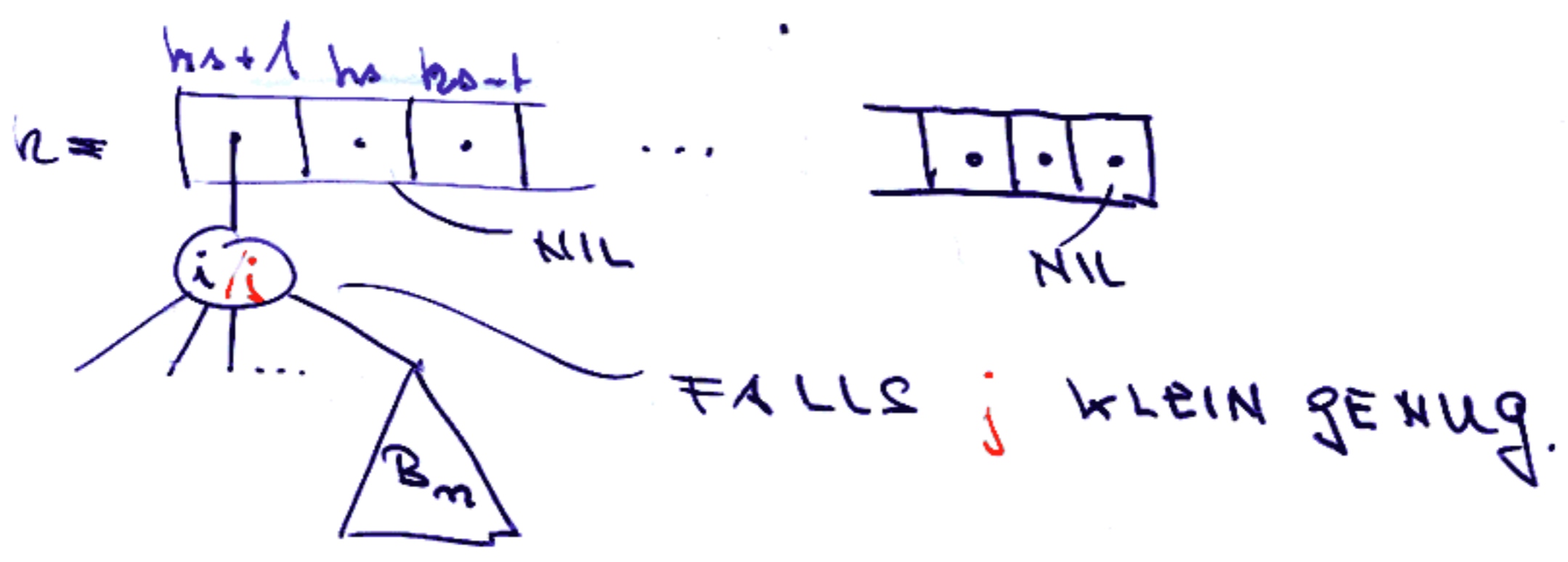


BILD 5

PRIORITY QUEUE IMPLEMENTIERUNGEN:

	DIREKTE ADRESSEN (WORST CASE)	BINÄRER HEAP (WORST CASE)	BINOMIALER HEAP W.C. AMORT.	
INSERT	$O(1)$	$O(\log m)$	$O(\log m)$	$O(1)$
DELETE-MIN (OHNE FINDEN)	$O(1)$	$O(\log m)$	$O(\log m)$	$O(\log m)$
MIN	$O(m)$	$O(1)$	$O(1)$	$O(1)$

ALSO:

	DIR. ADRESSEN	BINÄRER HEAP	BINOMIALER HEAP
m INSERTS	$O(m)$	$O(m \log m)$	$O(m)$