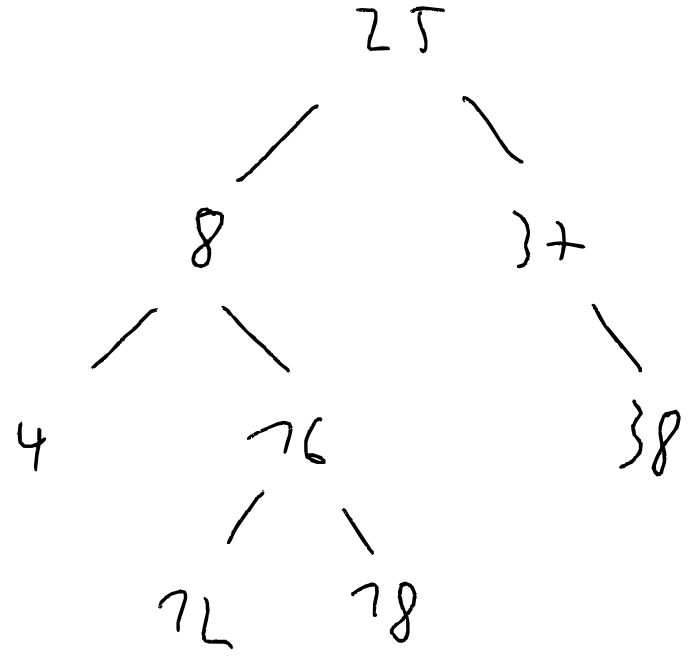
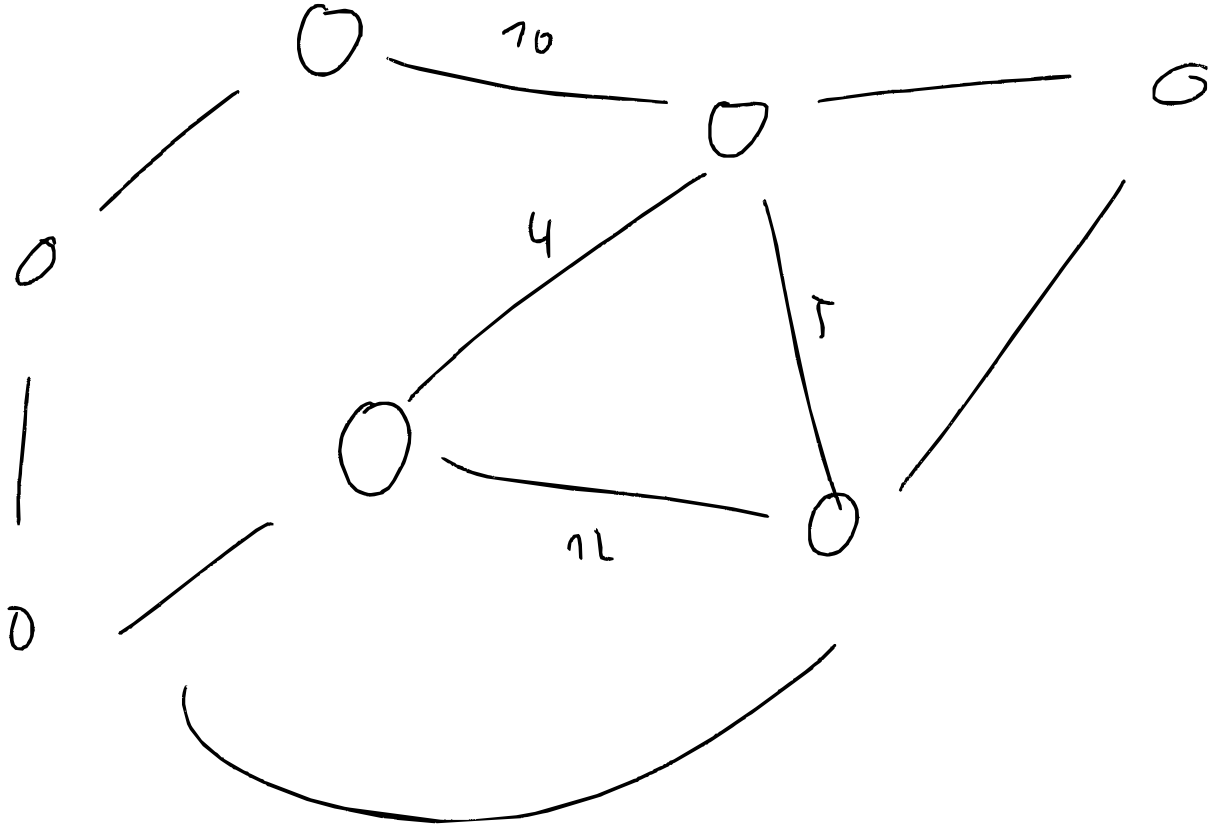
25 8 4 37 76 78 72 38

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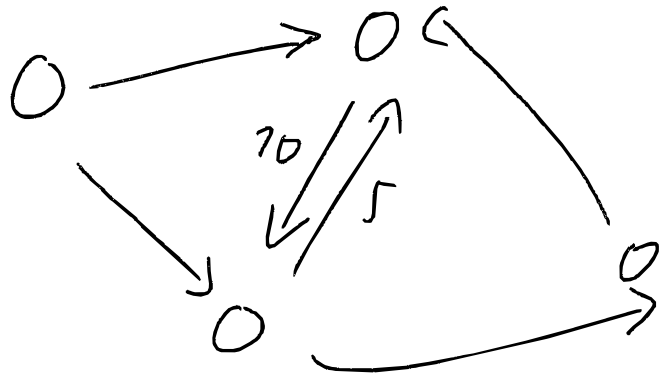
6
4
7
12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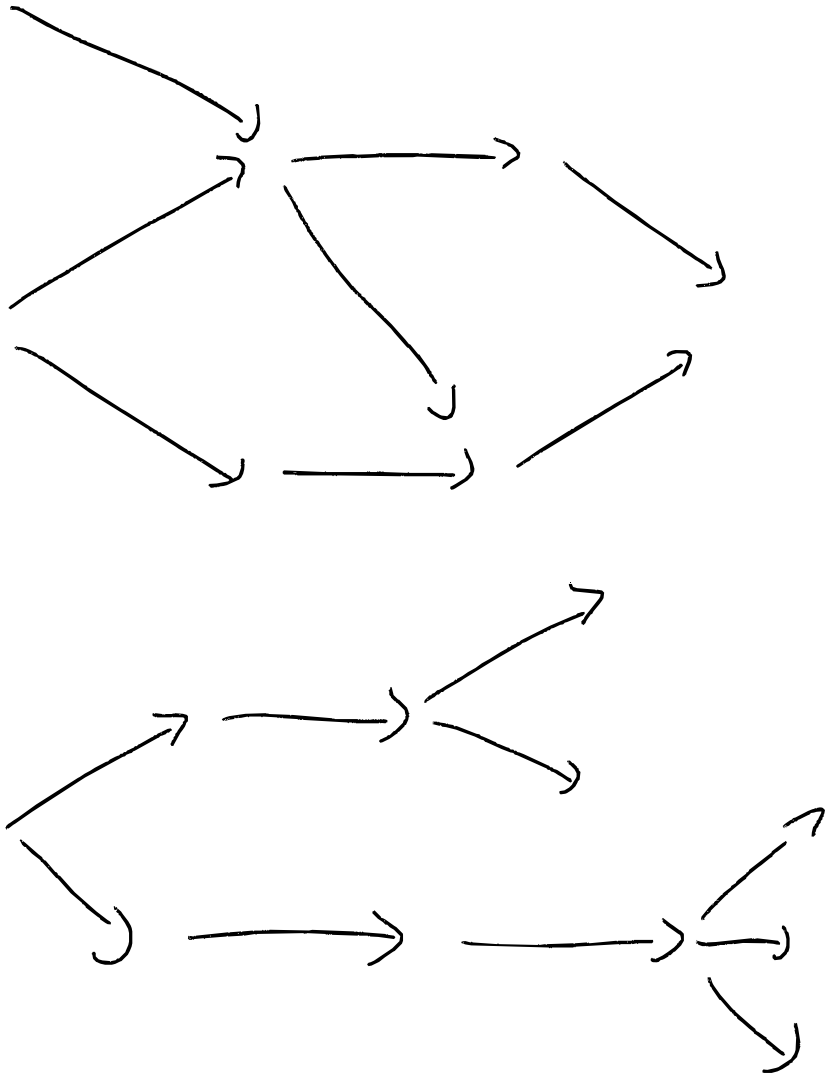
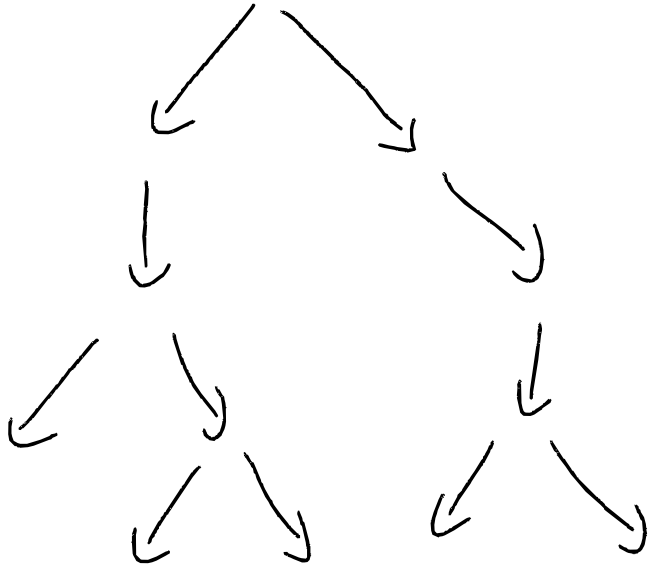
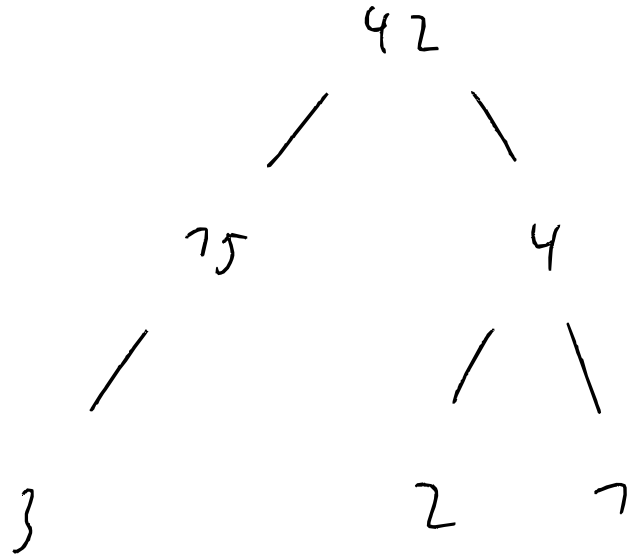
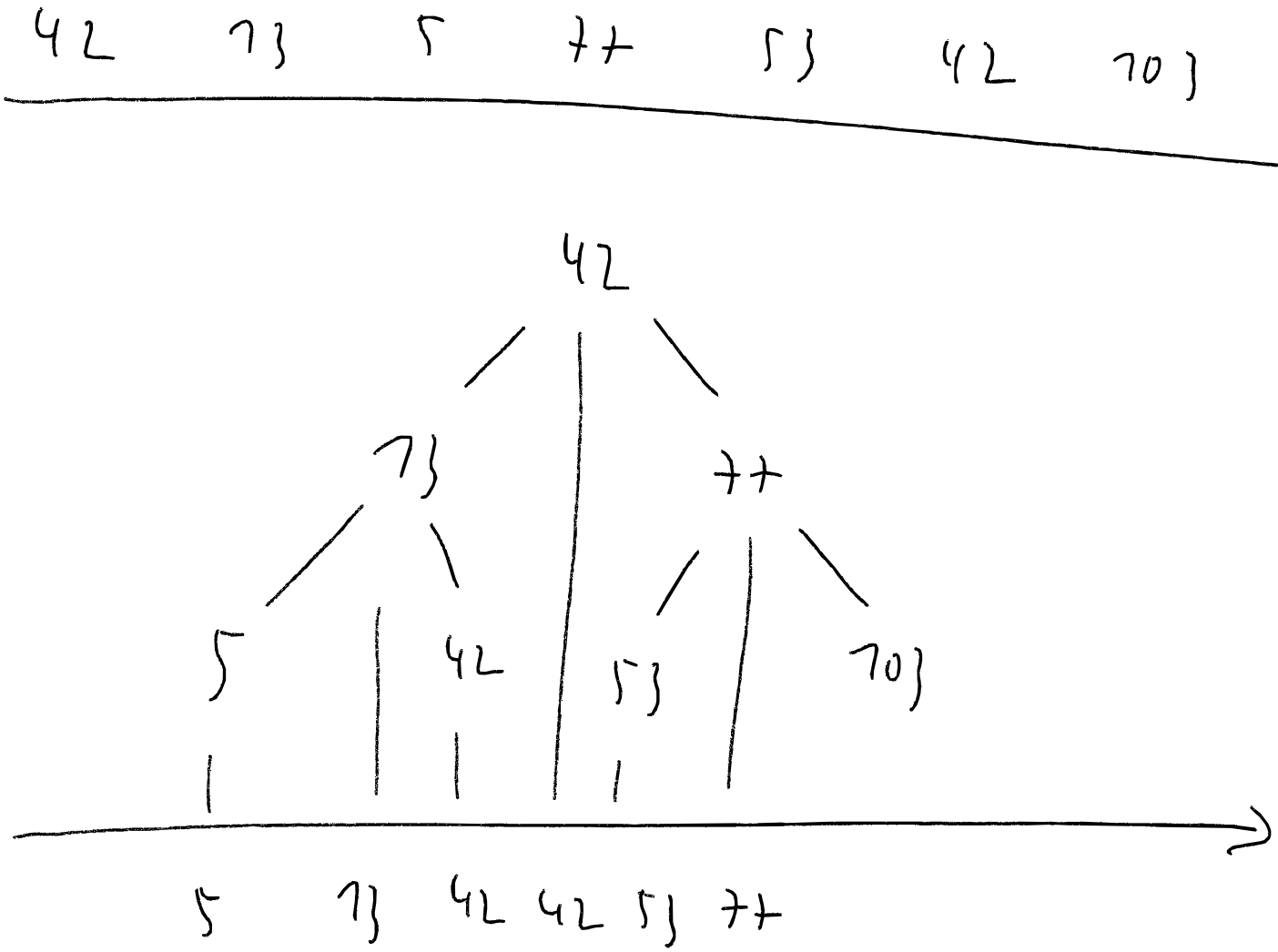




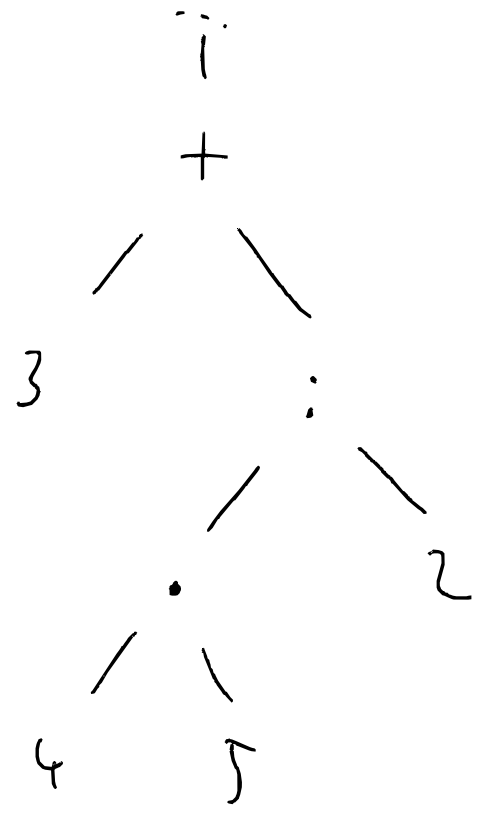

42
75
4
3
2
7

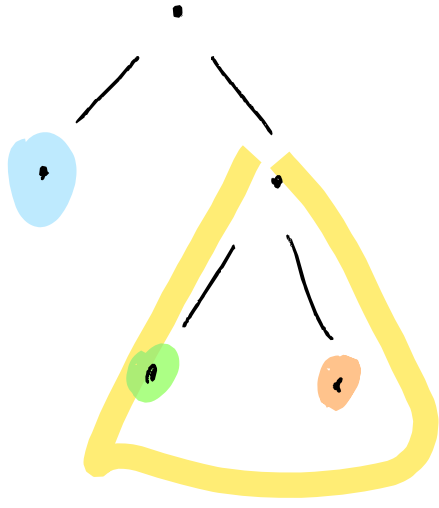

42 73 5 74 53 42 70
42
73
74
5
42
53
70
5 73 42 42 53 74

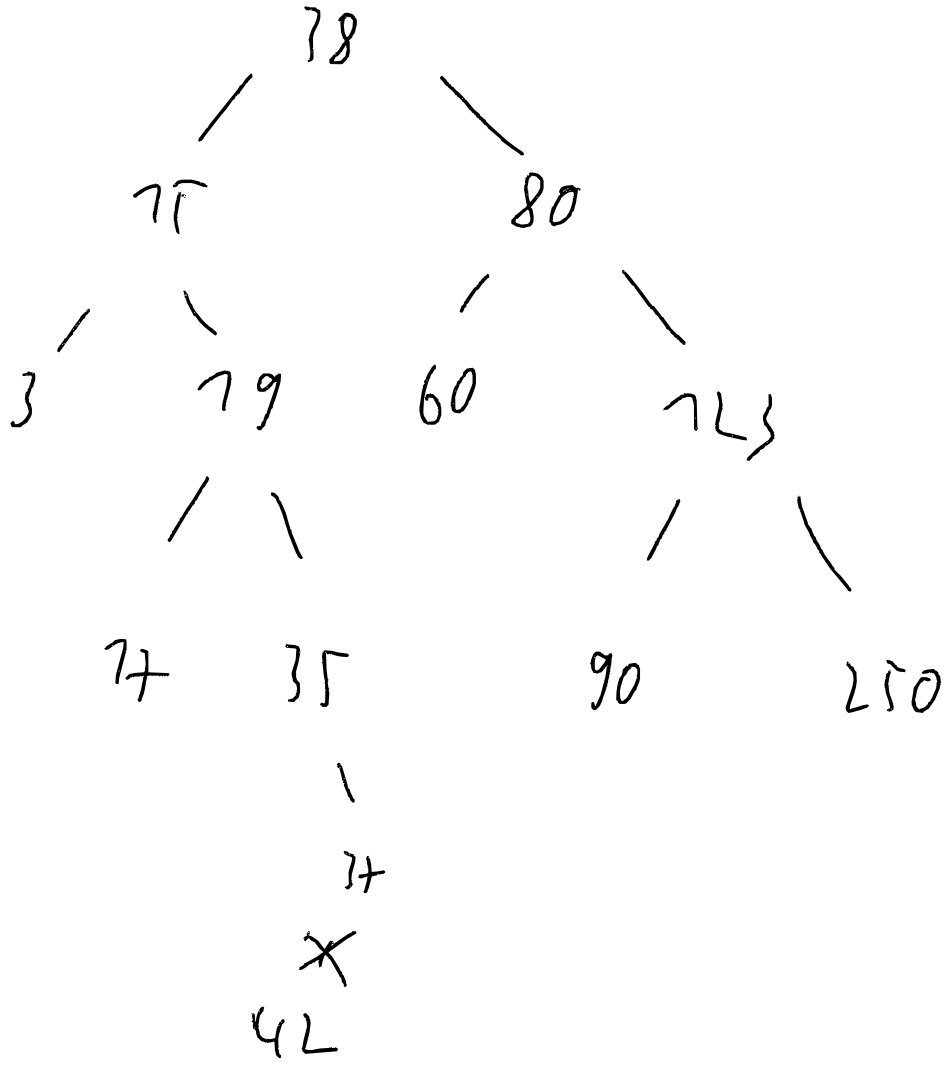
42 73 5 77 53 42 703

42 73 5 42 77 53 703

$$\left(3+\left(\left(4 \cdot 5\right) : 2\right)\right)^2$$



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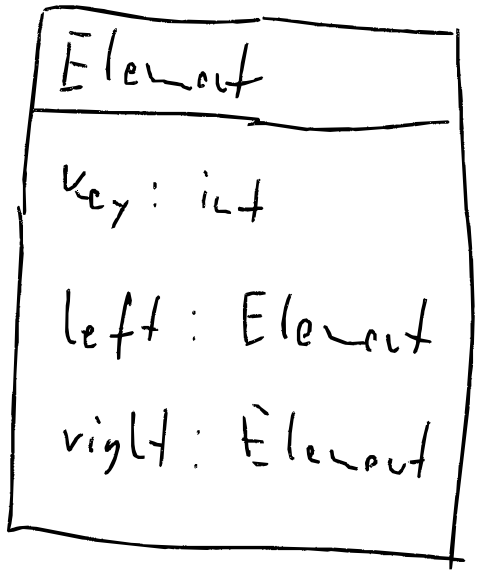
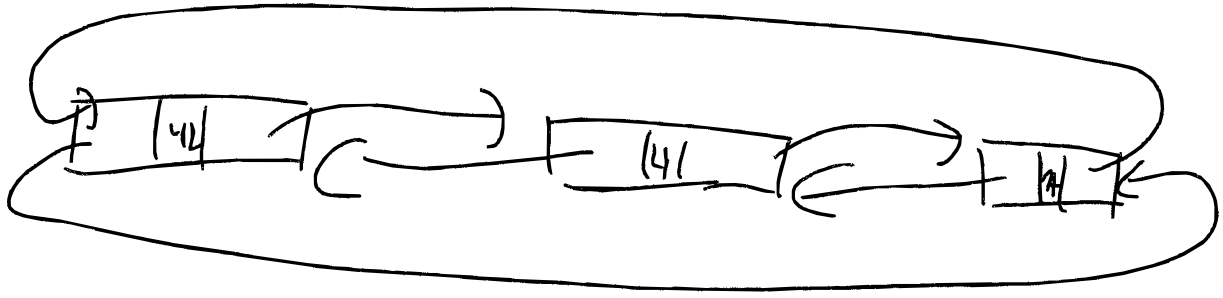
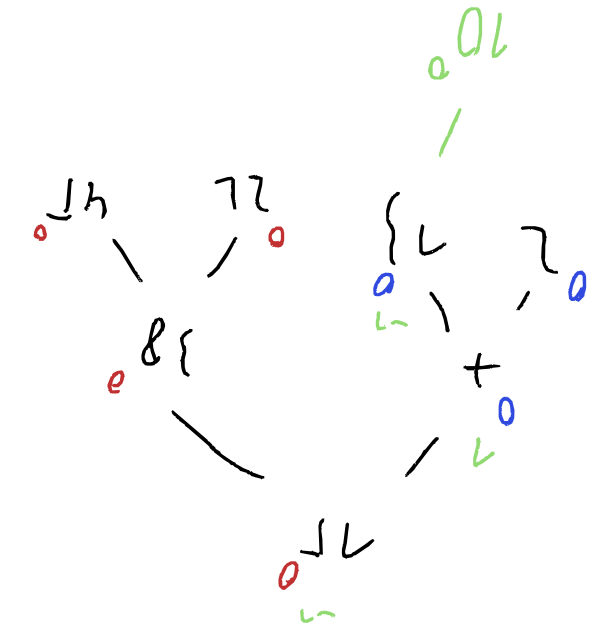
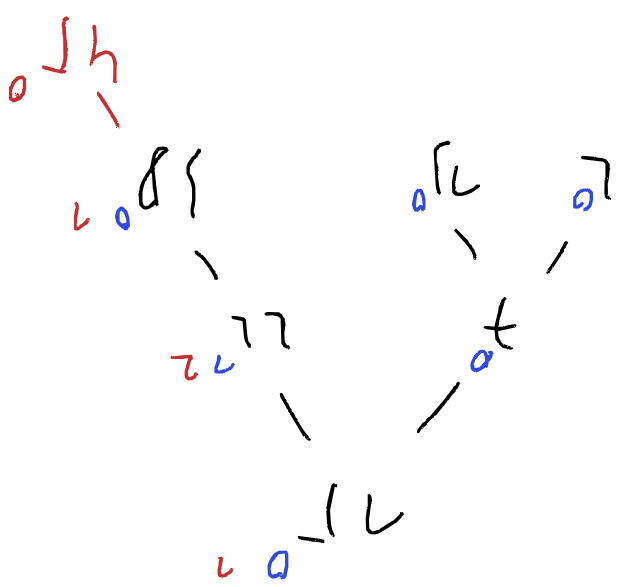
75
80
3
79
60
125
77
35
90
250
37
42

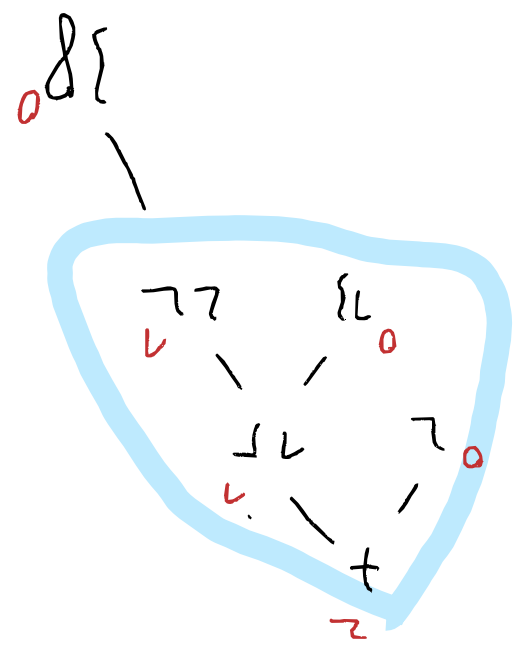

Element
key : int
left : Element
right : Element

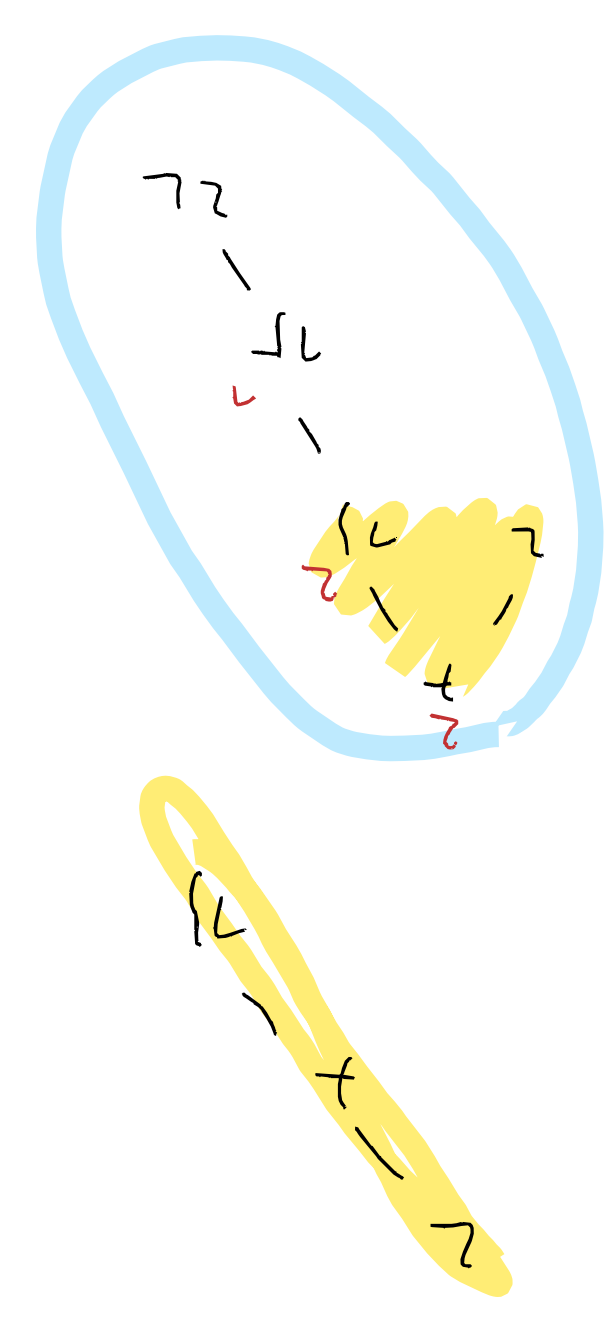

44
41

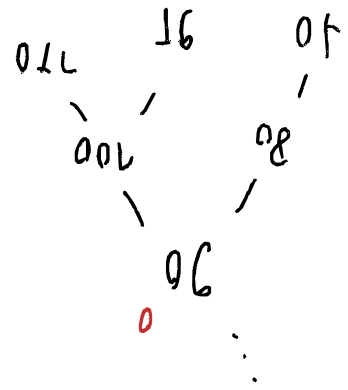
2 + 13 17 12 18

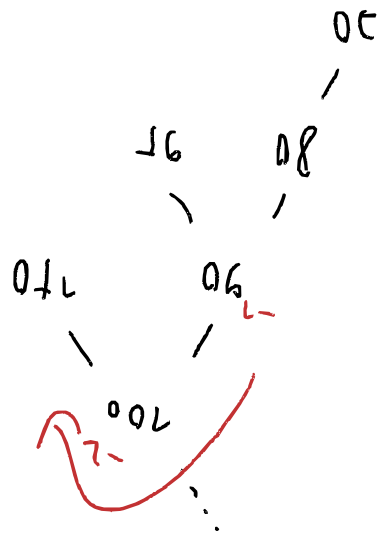


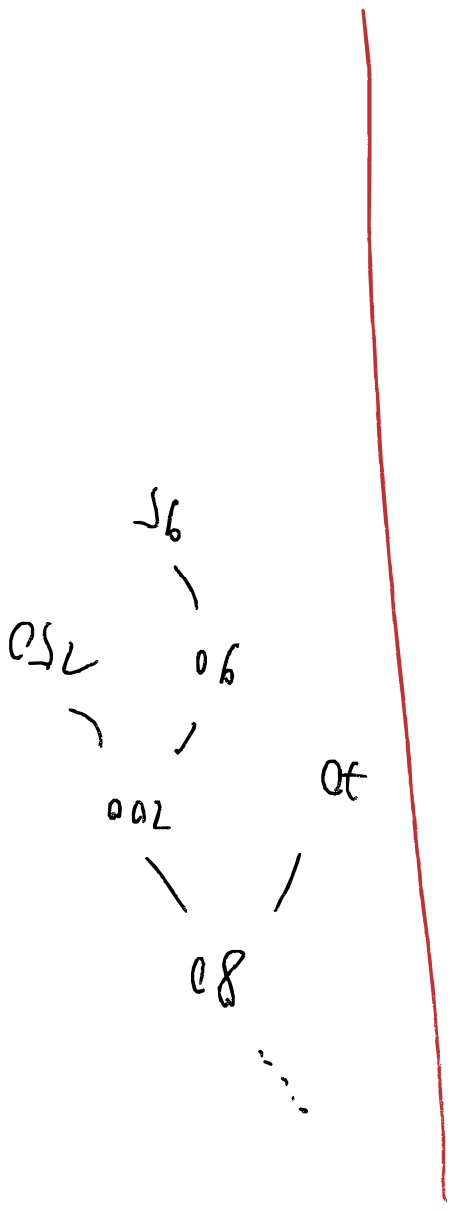


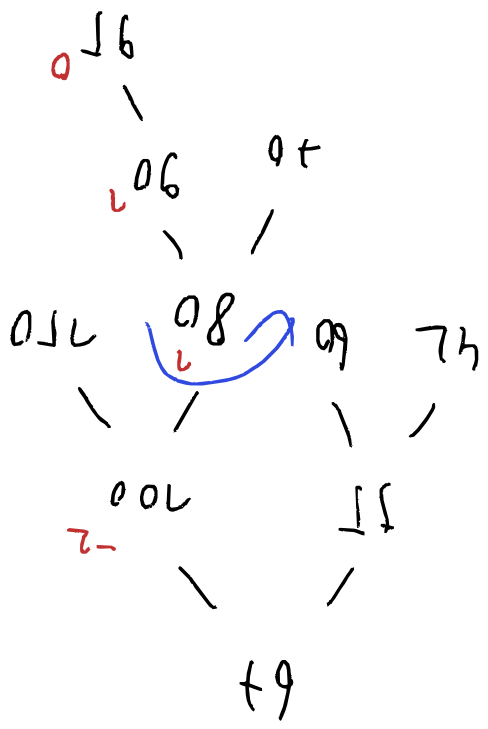


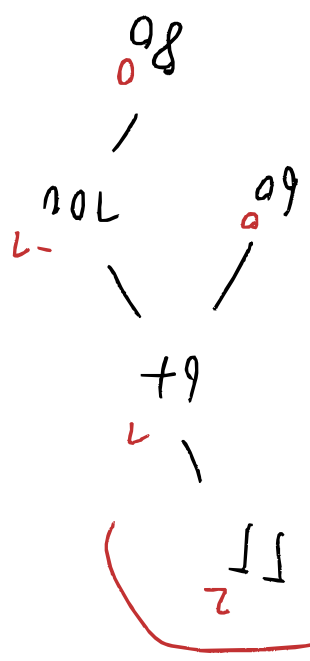


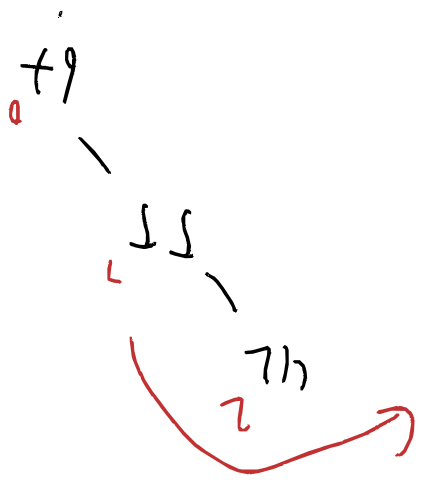












$\exists c \ \exists n_0 \ \forall n \geq n_0 \qquad f(n) \leq c \cdot g(n)$

$\exists c \ \exists n_0$

2

$10(n^2+n) \leq 7n^3$

$n^4 \leq 7n^3$

$$\begin{array}{|c|c|c|} \hline 13 & 2 & 4 \\ \hline \end{array} \quad 1 \quad 0 \quad 9 \quad 4 \quad 12 \quad 38$$

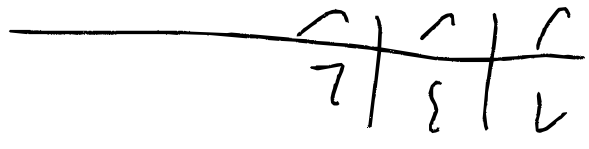
104

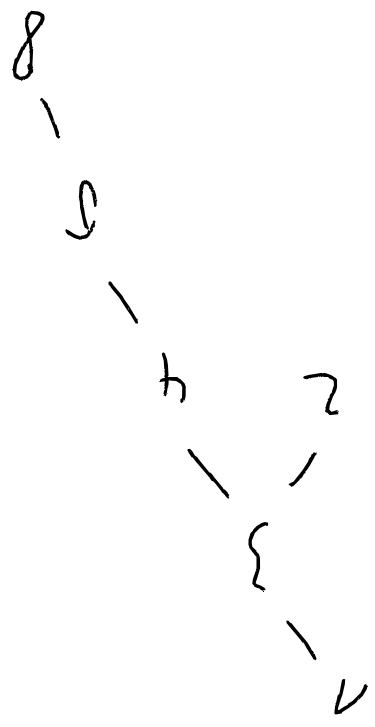
$$a_n b_n a_n b_n$$

$$a_n b_n$$

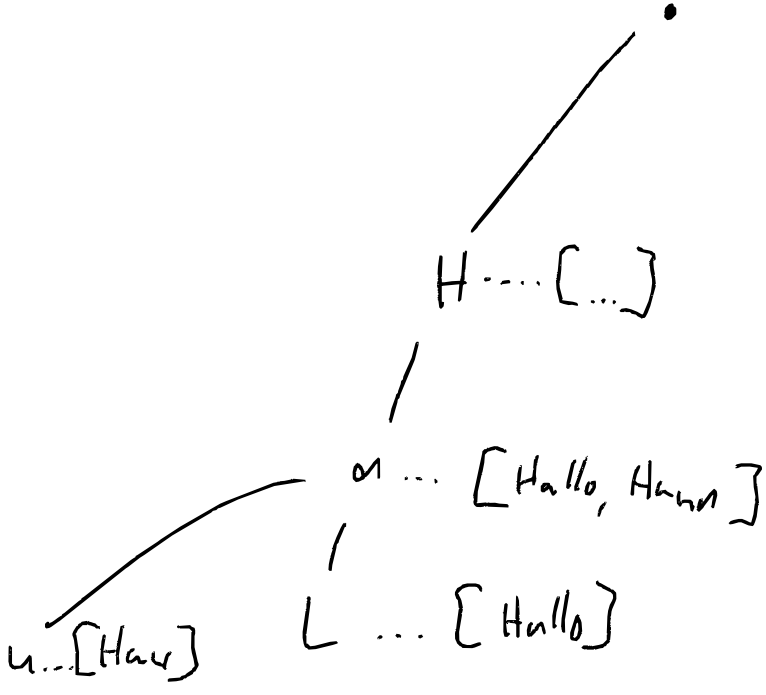
$$1\ 1\ 2\ 3\ 2\ 4\ 5\ 8$$

$$1\ 2\ 3\ 5\ 8$$





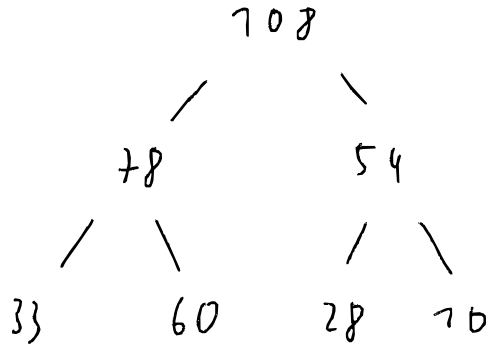
H α

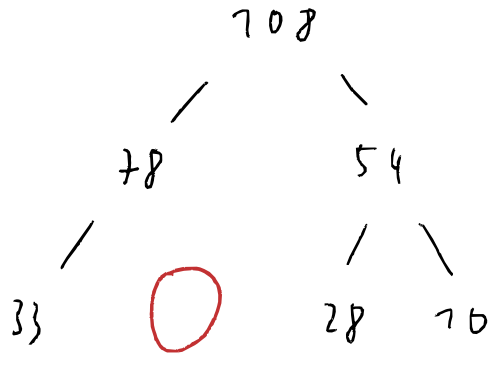


42, 44
41
55
100

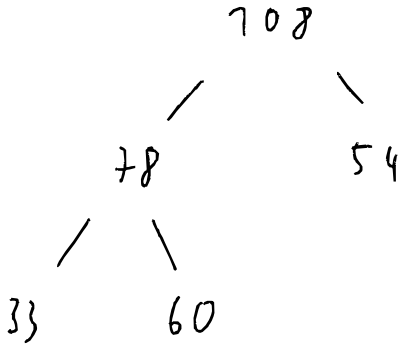
60
42
55
44
100

Max-Heap





gültig



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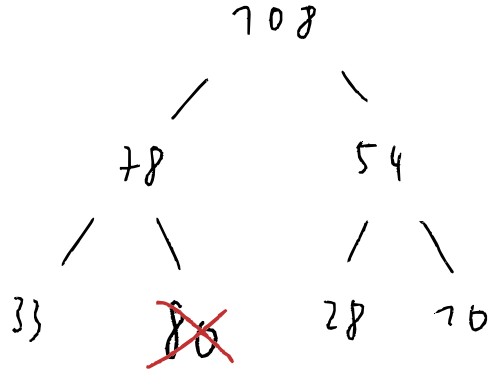
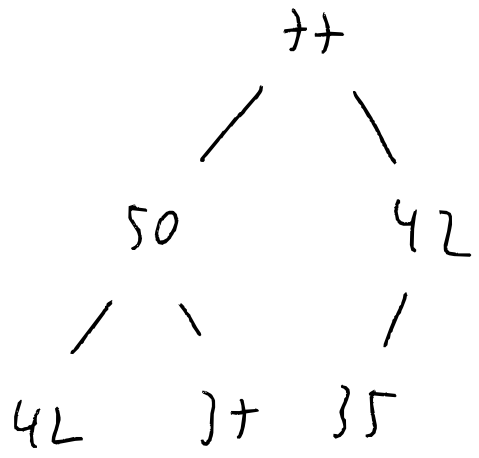
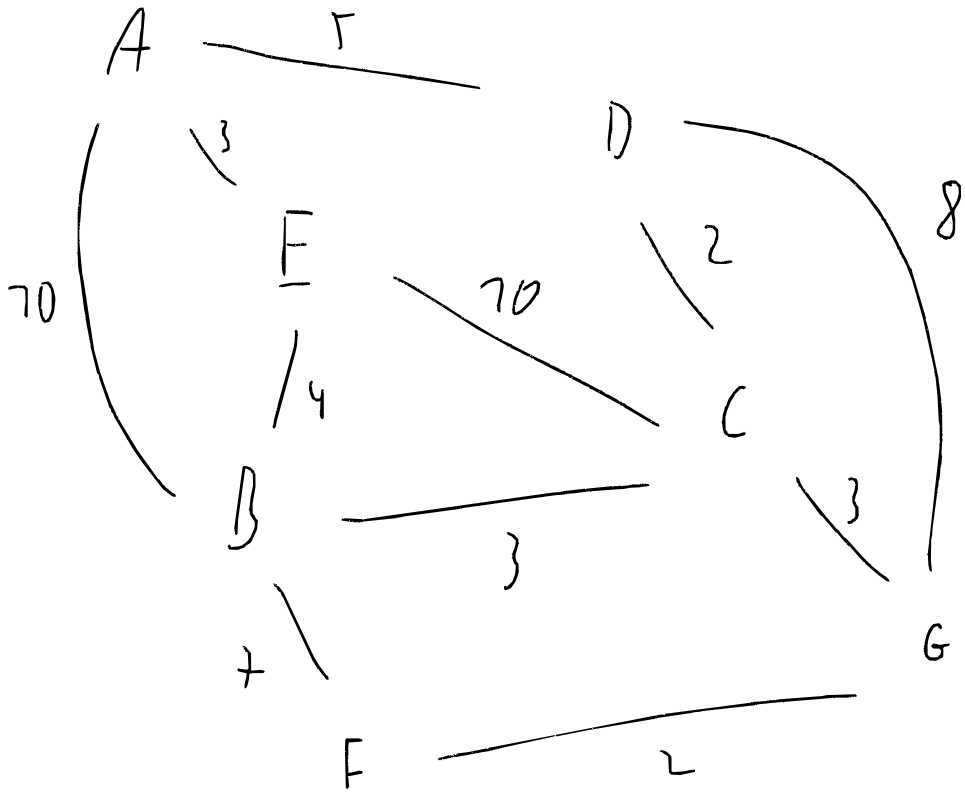


708
85
42
++
50
35
]+
200


++
50
42
42
]+
35



~~A → B : 70~~

~~A → E : 3~~

~~A → D : 5~~

~~A → B : 7~~ A → E → B

~~A → C : 75~~

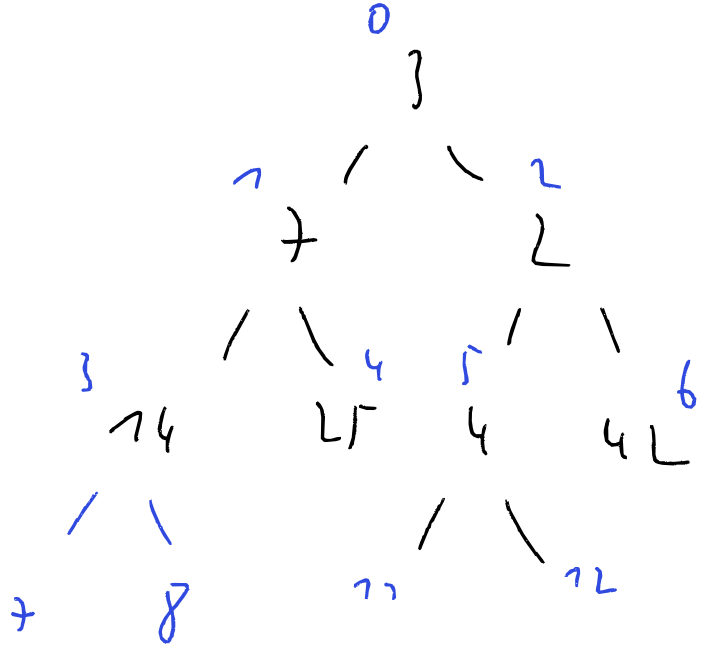
~~A → G : 75~~

~~A → C : 7~~

~~A → F : 74~~

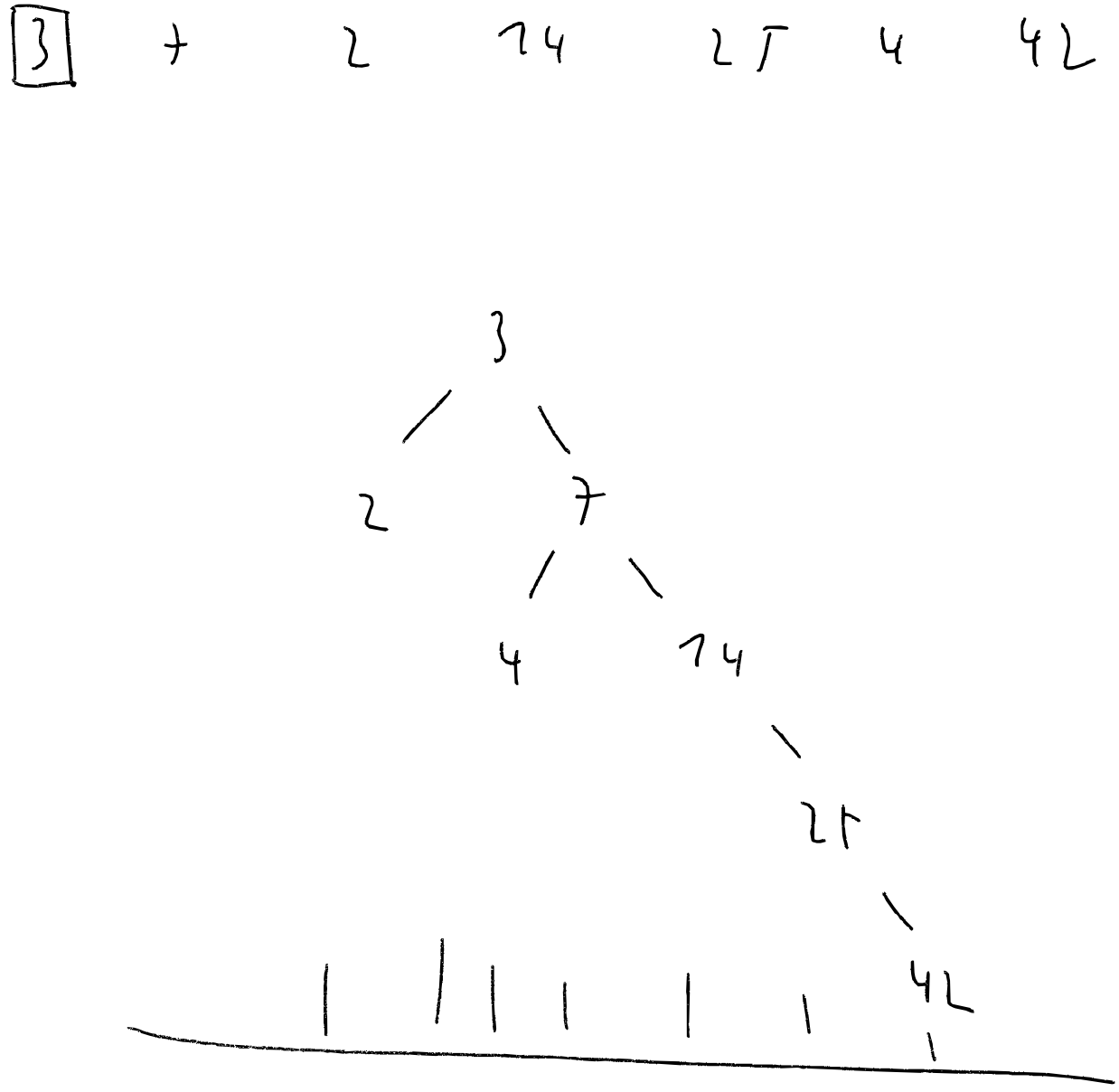
~~A → E : 70~~

A → G : 70



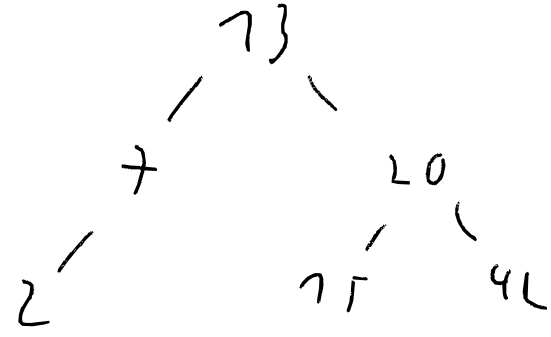
1 2 3 7 14 25

74	55	38	⟶	74	38	55	
103	150			101	150		
298	204			204	298		
390	308	064		308	064	390	



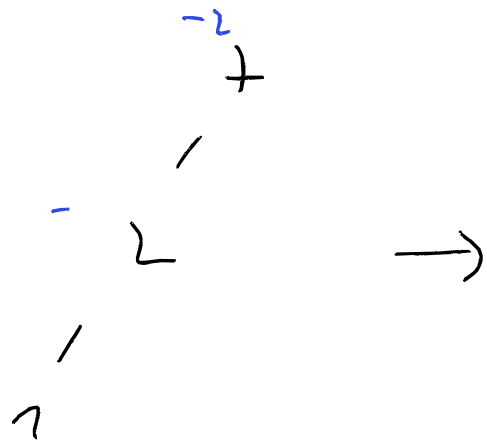
Pre-Order: 73 + 2 20 15 42

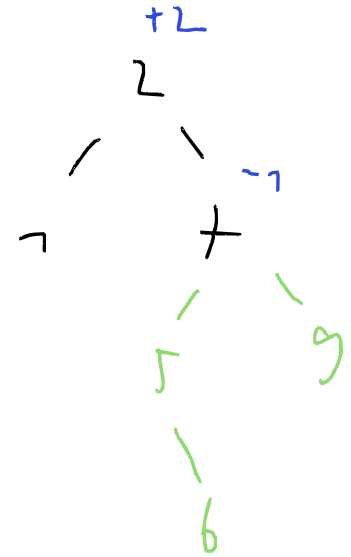
Binärer Suchbaum:

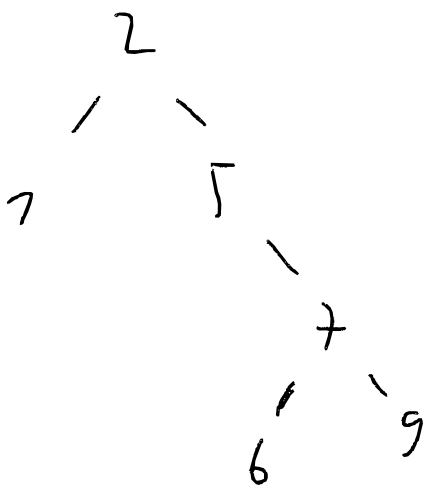


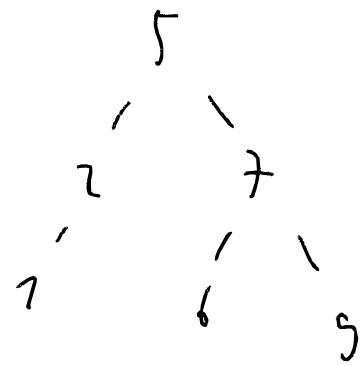
Einfügen: 7 2 7 9 5 6

AVL-Baum?





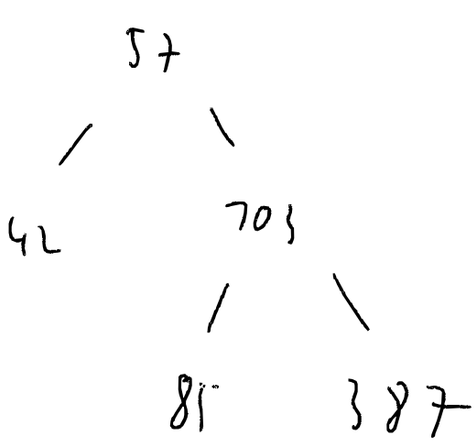


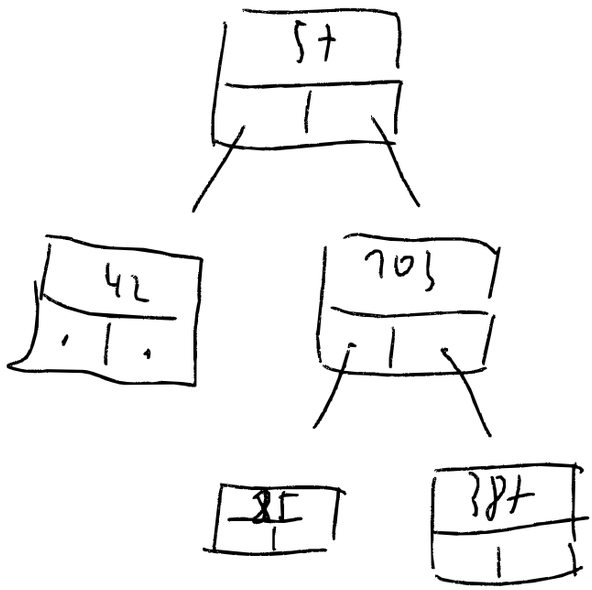


1 4 15 7+ 23 38 ++

7+ 4 1 15 38 23 ++

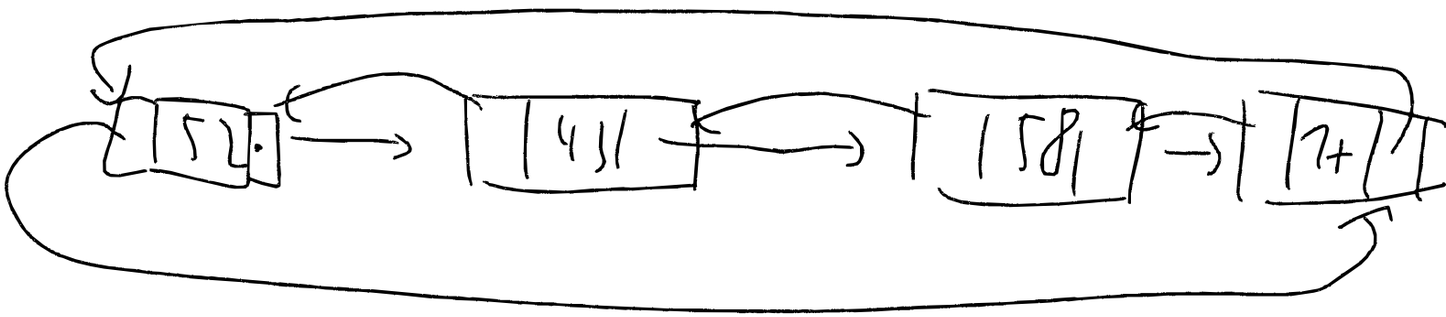
1 15 4 23 ++ 38 7+





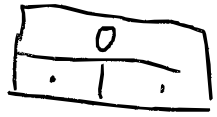
Node
key : int
left : Node
right : Node

Vergleich: Verkettete Liste



Element
Wert : int
next : Element
prev : Element

n = new Node();



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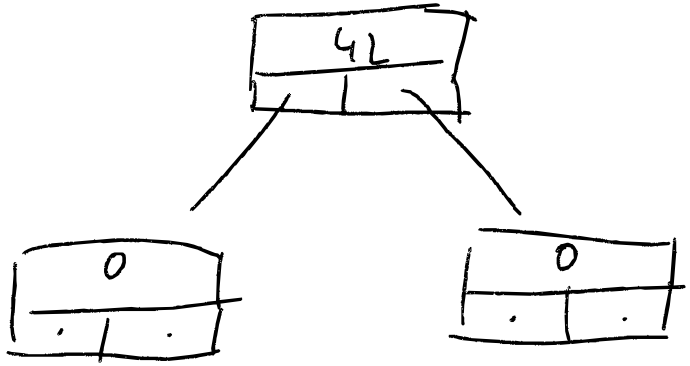
n.add(42);



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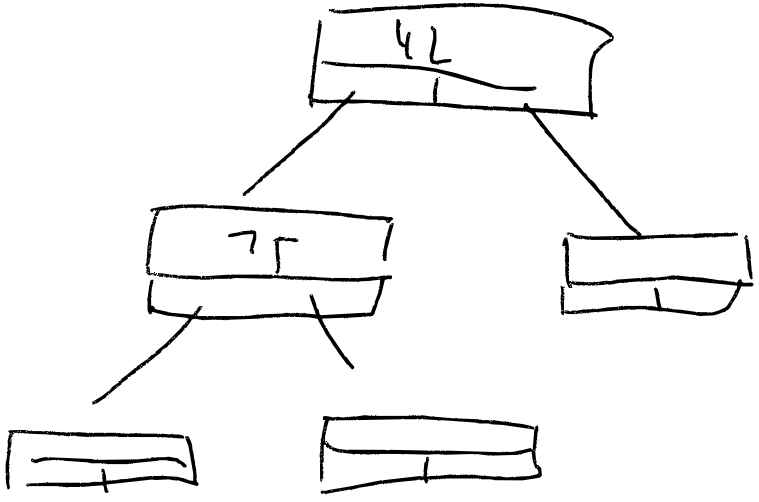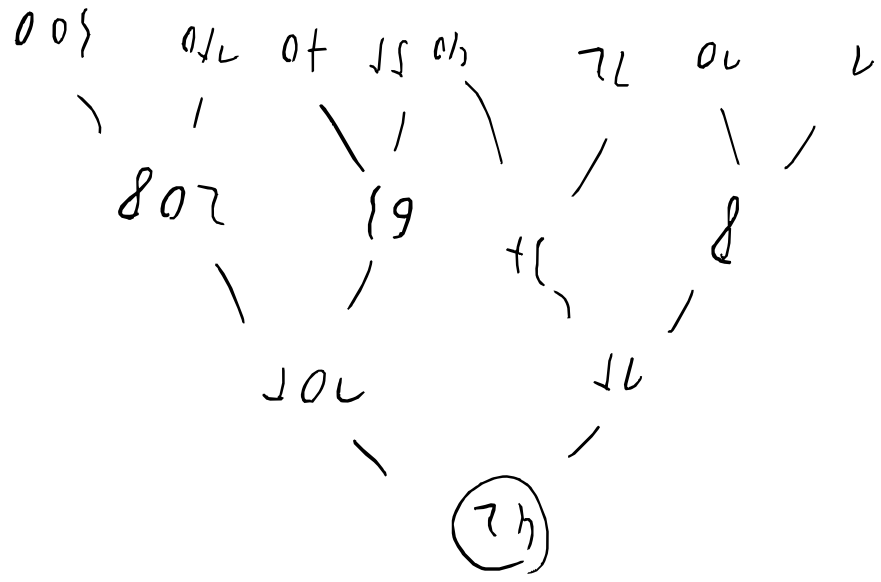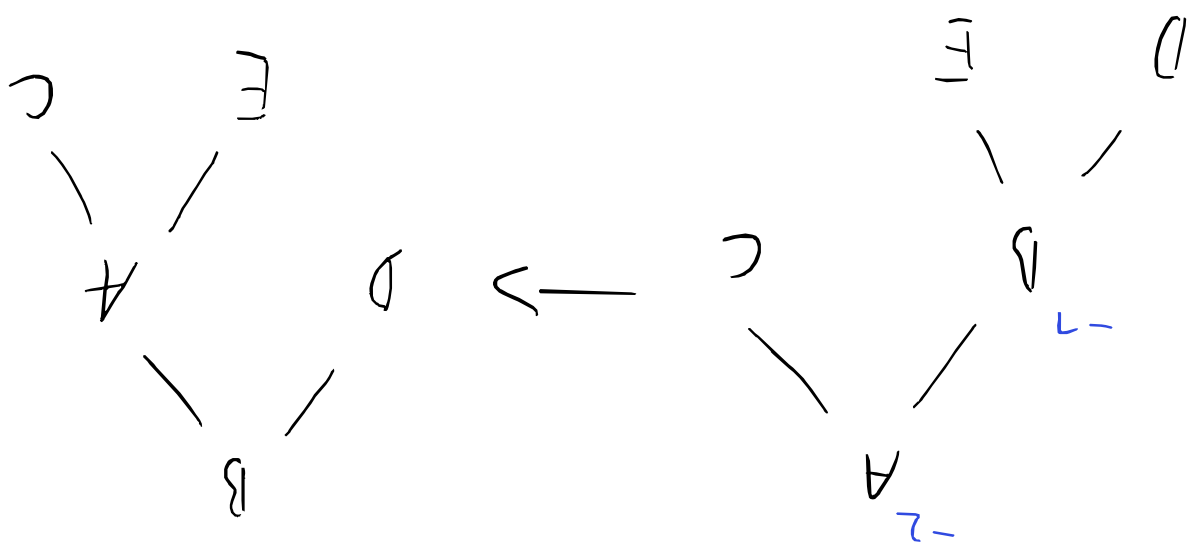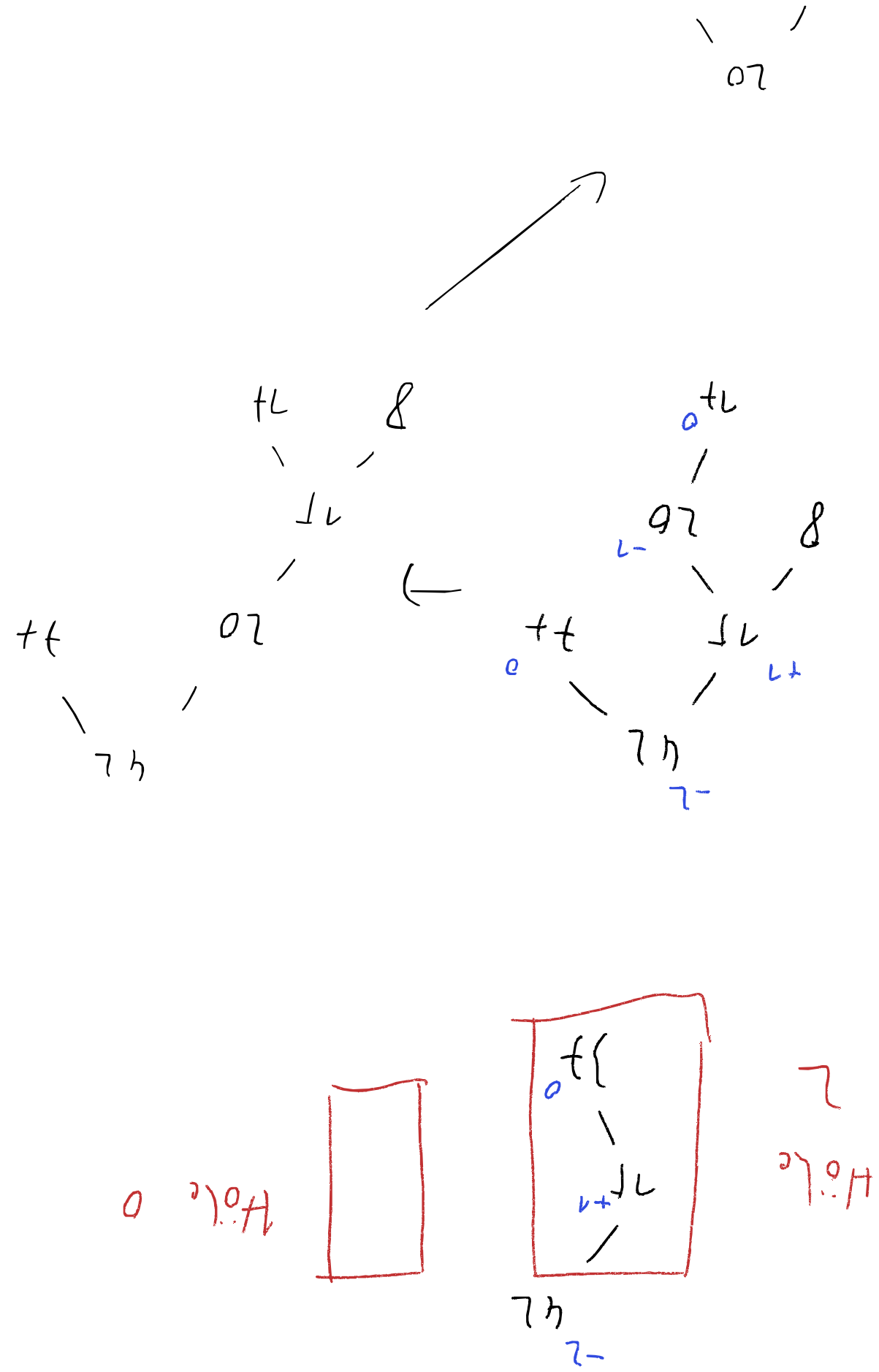
n.add(17);