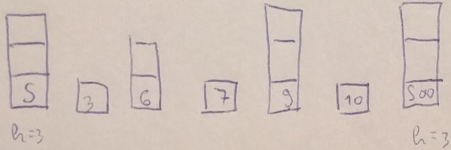


2) a)

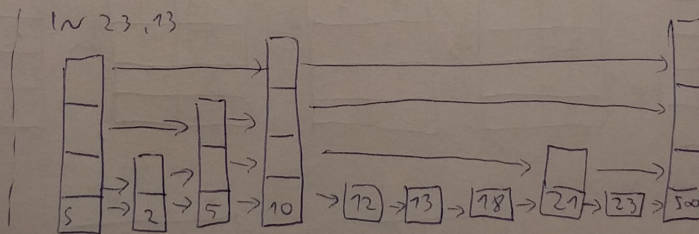
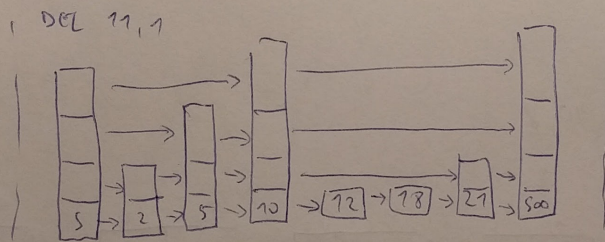
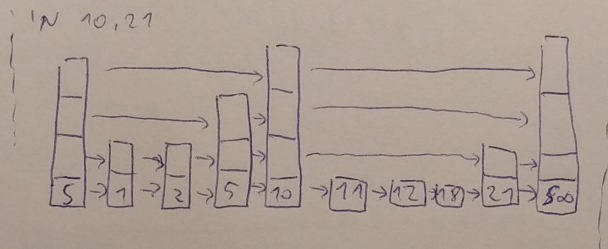
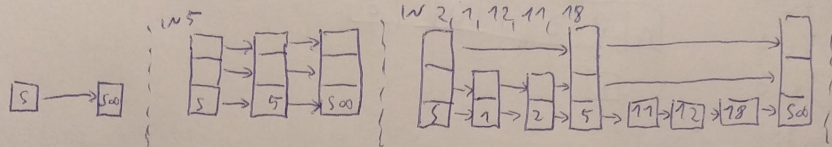


IZBRAC SEM VIŠINO SENTINELA 3, SADA JE ELEMENTOV 5
 IN OPTIMALNI ISKACI SEZNAM DELA V LOGARITMIČNEM
 ČASU $\rightarrow \lceil \lg(5) \rceil = 3$ ZATO SEM IZBRAL VIŠINO 3.

2. B) PSEUDO KODA PRILOGA NA NA DANU

2. C)

ACTIONS	SEQ	RAVNO
IN 5	110	
IN 2	10	
IN 1	10	
IN 12	10	
IN 11	0	
IN 18	0	
IN 10	1110	
IN 21	10	
DEL 11		
DEL 1		
IN 23	0	
IN 13	0	



```

1
2 def findPlaceToInsert(key, h):
3     element = sentinel[h]
4     if key == element:
5         return False
6     if h == 1:
7         sentinel.next = key #add key
8         return True
9
10    if key > element:
11        isBigger = element.next.findPlaceToInsert(h, key) #pomaknemo se v element in vstavljamo od njega naprej
12        if not isBigger:
13            h -= 1 #zmanjsamo visino
14
15    else #key je manjši
16        return False #vrne prejšnemu nodu False
17
18 def insert(key):
19     if not findPlaceToInsert(key, MAX_HEIGHT):
20         return False; #če nemormo ustaviti return False
21
22     height = 1
23     while(random.uniform(0, 1)):
24         height += 1
25
26     ##create new object
27     object = [None] * height
28     object[0] = key
29
30     #check heights
31     heightDiff = 0
32     if height > MAX_HEIGHT:
33         heightDiff = height - MAX_HEIGHT
34
35         for i in range(heightDiff):#as much as height diff is... rebuild sentinels pointers
36             sentinel[len(sentinel)-1 + i].ptr = object[len(sentinel)-1 + i] #nastavi pointer sentinel na object arr.
37             object[len(sentinel)-1 + i].ptr = sentinelInf[len(sentinel)-1 + i]
38         MAX_HEIGHT = height
39
40     #prevezi vmesne node
41     for i in range(height - MAX_HEIGHT) ##prve node preveri če bi pointerji lahko padli na object namesto na sentinelInf
42         if sentinel[i].ptr == sentinelInf[i]:
43             sentinel[i].ptr = object[i]
44
45     return True;
46
47 MAX_HEIGHT = 1
48
49 sentinel = [None] * MAX_HEIGHT
50 sentinelInf = [None] * MAX_HEIGHT
51 for i in range(len(sentinel)): #init
52     sentinel[i].ptr = sentinelInf[i]
53
54 insert(3)
55 insert(5)
56 insert(3)

```