Uygulama

1) 4371, 1323, 6173, 4199, 4344, 9679, 1989 hash-function

$h(x) = x \bmod 10$

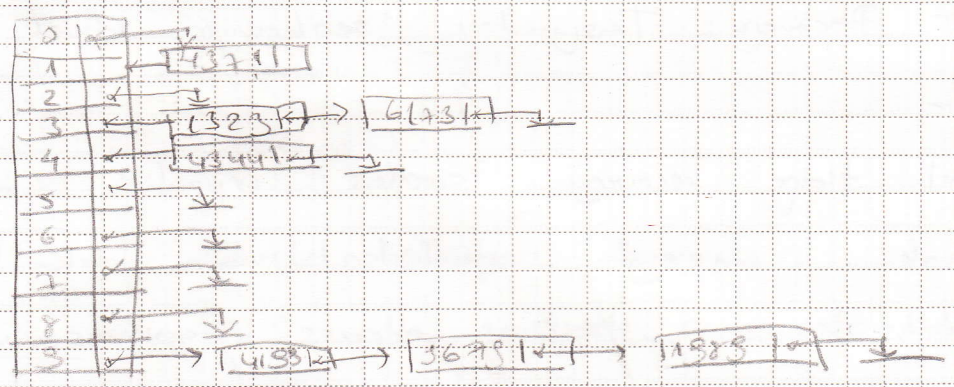
Q: What are the results of following?

a) Seperate chaining hash table.

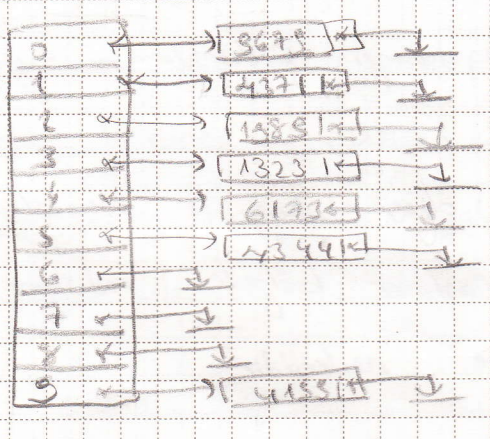
b) Open addressing hash table using linear probing

c) Open addressing hash table with second hash function $h_2(x) = 7 - (x \bmod 7)$

a)



b)



Linear probing

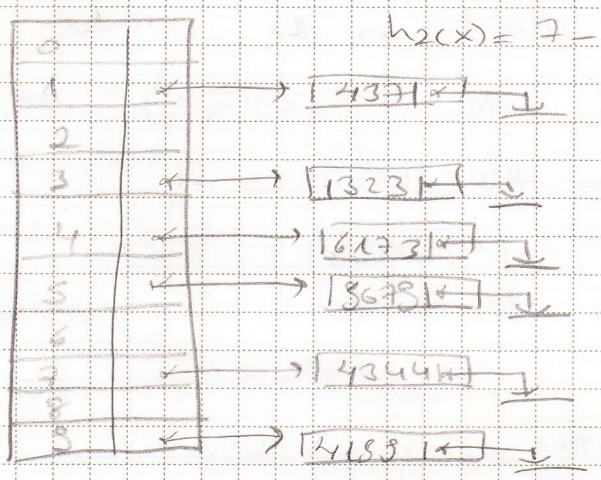
$h_i(k) = (\text{hash}(k) + i) \bmod m$

$i = 0$ (first trial)

$i = 1$ (second trial)

c) With second hash function

$h_2(x) = 7 - (x \bmod 7)$



What about 1589?

↓

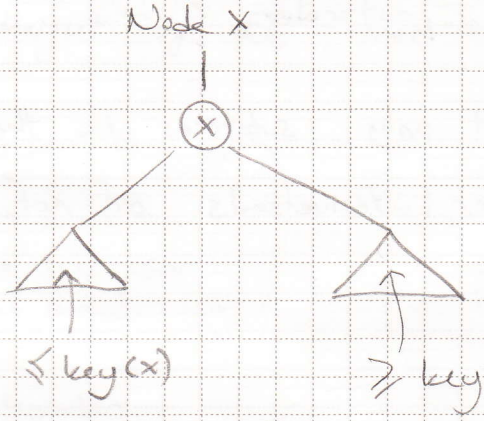
cannot be inserted into table because

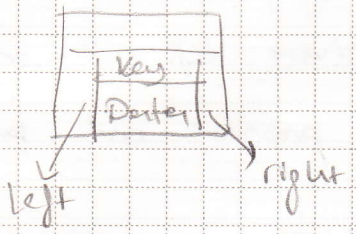
$h_2(1589) = 7 - (x \bmod 7)$

$= 6$

and the alternative locations 5, 1, 7 and 3 were already taken

Binary Search Tree





Example: Given: preorder and inorder traversal of the tree

Q: Can we reconstruct the tree?

If yes, give an algorithm for doing so.

If not, give a counter example.

(Assume that the binary tree is not necessarily a binary search tree.)

Answer: Yes