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Assignment 6

Question 5.1

1. Doing a hash table by adding the collisions at the end of the list. Separate Hash Table for given input {4371, 1323, 6173, 4199, 4344, 9679, 1989}:

0


1

4371
2


3

1323 -> 6173
4

4344
5


6


7


8


9

4199 -> 9679 -> 1989
￼
Ink Drawings


1. Hash Table using linear probing:

0
9679
1
4371
2
1989
3
1323
4
6173
5
4344
6

7

8

9
4199
￼


1. Hash Table using quadratic probing:

0
9679
1
4371
2

3
1323
4
6173
5
4344
6

7

8
1989
9
4199
￼


1. Hash Table with second hash function h2(x) = 7 − (x mod 7)

The number 1989 can’t be put into the table because h2(1989) = 6 and 1,3, 5, and 7 are already taken.

0

1
4371
2

3
1323
4
6173
5
4344
6

7
4344
8

9
4199
￼
