

Algorithms: Homework 2

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Problem 1

Solution.



Problem 2

Solution. ??



Problem 3

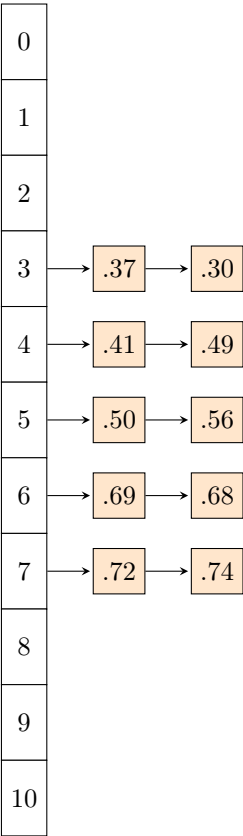


Figure 1: Insert data

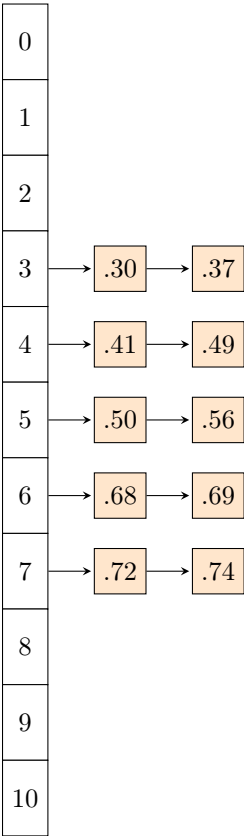


Figure 2: Sort each bucket

Problem 4

Solution.



Problem 5

Solution.



Problem 6

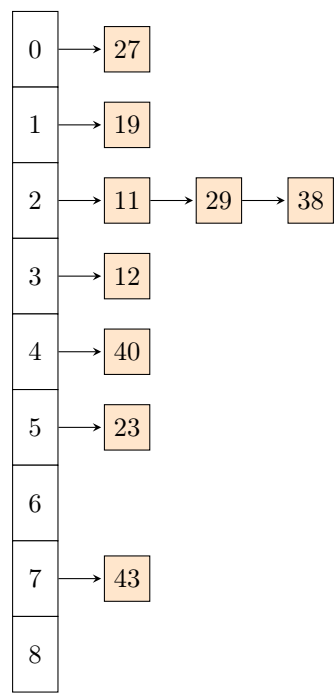


Figure 3: Hash table with chaining

Problem 7

0	87
1	23
2	12
3	58
4	4
5	0
6	28
7	17
8	0
9	31
10	10

Figure 4: linear probing

0	58
1	23
2	87
3	17
4	4
5	12
6	28
7	7
8	8
9	31
10	10

Figure 5: quadratic probing

0	0
1	0
2	0
3	0
4	0
5	0
6	0
7	0
8	0
9	0
10	0

Figure 6: double hashing

Problem 8

Solution.



Problem 9

Solution.



Figure 7: First.

Figure 8: Second.

Figure 9: Third.

Problem 10

Solution.



Left	Center Cent C	Right R
L Left	C Cent Center	R