Anh Pham

CMSC 204

25th October 2022

Hashing Lab

1.

a) N = 13, 4k+3 prime =19

Array:

|  |  |
| --- | --- |
| 0 | 13 |
| 1 | 27 |
| 2 | 26 |
| 3 | 109 |
| 4 |  |
| 5 | 53 |
| 6 | 49 |
| 7 |  |
| 8 | 138 |
| 9 |  |
| 10 | 10 |
| 11 | 174 |
| 12 | 24 |

b)

|  |  |
| --- | --- |
| 0 | 10 |
| 1 |  |
| 2 |  |
| 3 | 53 -> 13 |
| 4 | 174 -> 24 |
| 5 |  |
| 6 | 26 |
| 7 | 27 |
| 8 | 138 |
| 9 | 109 -> 49 |

2.

|  |  |  |
| --- | --- | --- |
| Key | Linear array | Buckets |
| 53 | 2 | 1 |
| 138 | 1 | 1 |
| 109 | 4 | 1 |
| 49 | 4 | 2 |
| 174 | 2 | 1 |
| 26 | 2 | 1 |