Question 1 — 1 / 1 point

Distribution Counting Sort works for input that contains duplicate values.

- ✔ (●) True
- ( ) False

Question 2 — 1 / 1 point

You need to store some numbers in a hash table. Collisions are handled by the closed hashing method (no chaining). The table has 4 buckets, and the hash function is KmodN, where N is the number of buckets.

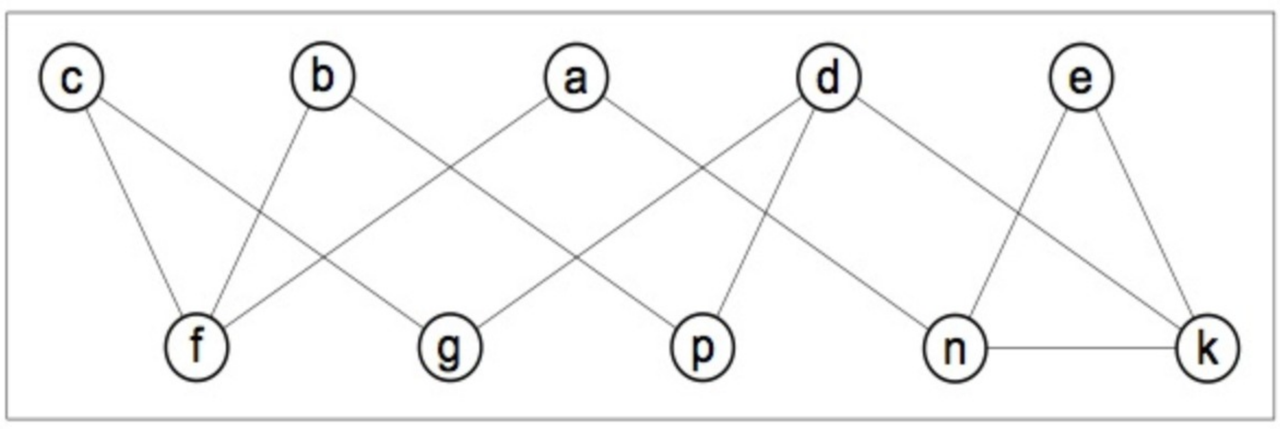
The commands to store the items are show below, and are executed in the order given.

Which bucket will the number 16 be stored in?

hashtable.add(12)
hashtable.add(14)
hashtable.add(16)

- ( ) 0
- ✔ (●) 1
- ( ) 2
- ( ) 3

Question 3 — 1 / 1 point



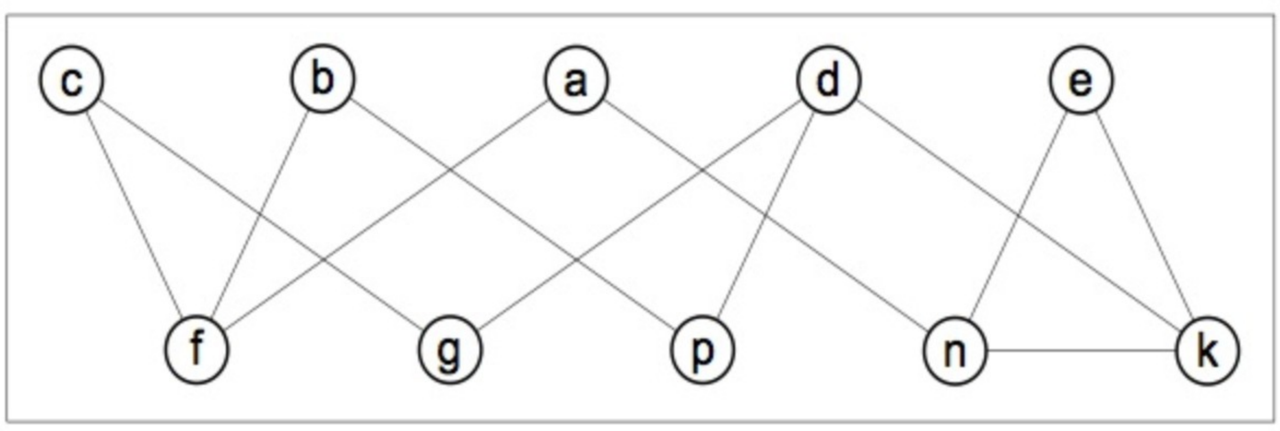
Consider the above graph. Starting at vertex a and resolving ties by the vertex alphabetical order, traverse the graph by breadth-first-search (*bfs*).

List the order of vertices based on BFS traverse.

Give your answer as a single lowercase string of vertex labels, with not spaces. For example: abcdefgpn

Answer: afnbcekpgd ✔

Question 4 — 1 / 1 point



Consider the above graph. Starting at vertex a and resolving ties by the vertex alphabetical order, traverse the graph by depth-first-search (*dfs*).

List the order of vertices based on DFS traverse.

Give your answer as a single lowercase string of vertex labels, with not spaces. For example: abcdefgpn

Answer: afbpdgcken ✔

Question 5 — 1 / 1 point

Assume you are using Horspools algorithm to search for Pattern "ABC" in Text T="ABRACADABRA".

The very first comparison made the comparison of an "A" with an "A".

- ( ) True
- ✔ (●) False