1. WAP that takes n integer numbers, sorts them using Quick sort.

Sample input	**Sample output**
5 6 2 3 3 5	2 3 3 5 6
6 5 6 7 8 0 1	0 1 5 6 7 8

2. WAP that takes n integer numbers, where each of the numbers are non-negative and < n. You have to sort the numbers in O(n).

Sample input	**Sample output**
5 4 2 3 3 0	0 2 3 3 4
6 1 0 4 2 3 0	0 0 1 2 3 4

Hint: As all the numbers are <n so you can track the frequency of each number. Then Iterate from 0 to n-1 and output the numbers. This kind of sorting is called counting sort.

3. Why do you think linked-list requires more memory than an array when storing the same number of elements?