Basics

- What is the upper limit for space complexity ?   - 64kb/256mb
  10^6 array inside function
  10^7 array global
  Boolean 10^8 - global

- Will an array of size 10**5 give buffer overflow ?   no

Arrays

- Minimum swaps to sort an array (Namya) what is the other approach
  Swaps sort - bubble , selection

- https://leetcode.com/problems/combination-sum/ (Namya), does this have some formula ?

- https://practice.geeksforgeeks.org/problems/merge-two-sorted-arrays5135/1#

Merge 2 arrays without extra space, (Namya)

- https://leetcode.com/problems/minimum-operations-to-reduce-x-to-zero/ (Namya)

- https://leetcode.com/contest/biweekly-contest-44/problems/decode-xored-permutation/

Ques : Buy and sell stock 1,2,3 explanation of solution.
https://leetcode.com/problems/best-time-to-buy-and-sell-stock/
https://leetcode.com/problems/best-time-to-buy-and-sell-stock-ii/
https://leetcode.com/problems/best-time-to-buy-and-sell-stock-iii/

Q) Take as input N, a number. N is the size of a snakes and ladders board. There are no snakes but we've ladders from 1st prime number to last prime number in range, 2nd prime number to 2nd from last prime number and so-on.

Write a recursive function which returns the count of different distinct ways this board can be crossed with a normal dice (1-6). Print the value returned.

Q) https://leetcode.com/problems/trapping-rain-water/

Linked list
- Reverse linked list in pairs (Not only values but nodes have to be reversed) (Namya)   (pointer manipulation - try to solve some questions of this, use pen and paper also)

- Clone a linked list https://practice.geeksforgeeks.org/problems/clone-a-linked-list-with-next-and-random-pointer/1 (Namya)

Maths
You are given a number N which you have to reduce to 1 in minimum number of moves possible. In one move you can either divide the number by 10 or multiply it by 5.
Calculate and print the minimum number of moves possible or print -1 if its not possible.
input:
4
1
5
10
100
output : 0
-1
1
2

Power of 2 and 5   else   -1
N   m
min(n,m)   divide
n<m   -1
Multiply by 5 till n!=m   then /10 till 1
2n-m   (n-m)+n

Recursion, Backtracking

Q) letter combinations of phone number (
https://leetcode.com/problems/letter-combinations-of-a-phone-number/)

Hashmaps

QUES - You have N colors A1, A2, ..., AN. You want to make the values of all the colors pairwise distinct. In order to achieve that, you can perform the following mixing operation zero or more times: Choose any two colors. Let's denote their values by x and y. Mix the color with value x into the color with value y. After the mixing, the value of the first color remains x, but the value of the second color changes to x + y.Find the minimum number of mixing operations required to make the colors unique.

Trees
  • https://leetcode.com/problems/unique-binary-search-trees-ii/ (Namya)

https://leetcode.com/problems/unique-binary-search-trees-ii/discuss/1050405/C%2B%2B-solution-oror-5-Feb

  • https://practice.geeksforgeeks.org/problems/binary-tree-to-dll/1#

  • What exactly is a disjoint set ? Where can it be used? (namya)

Sorting
  • In the implementation of stable sort, we have to keep track of indices in the original array right?

  • Sort by bitset count (Namya)
    https://practice.geeksforgeeks.org/problems/sort-by-set-bit-count1153/1

Graphs
  • https://leetcode.com/problems/redundant-connection/ (Namya)