Vending machine,Class Nap,custom hashset,Sort by value

DSA-Merge Sort,Quick Sort,Bit Manipulation,Egg drop,Segment tree,

What is timecomplexity and SpaceComplexity,overlapping substrucutre

https://oj.masaischool.com/contest/8007?password=dsam2r4

In place,stable sort,Implement stack using queue,queue usig stack

Mock 1

Dsa Short

https://oj.masaischool.com/contest/7988?password=dsam1r1

Long Dsa

https://oj.masaischool.com/contest/7987?password=dsam1r4

Java Core

https://oj.masaischool.com/contest/7993?password=28188

Mock 2

Short Dsa

https://oj.masaischool.com/contest/8008?password=dsam2r1

Java Core

https://oj.masaischool.com/contest/8020?password=28189

Long Dsa

https://oj.masaischool.com/contest/8007?password=dsam2r4

Mock 3

Round 1(Short)

https://oj.masaischool.com/contest/8062?password=masai012

masai012

Long Dsa

Only this

https://oj.masaischool.com/contest/8060

Masai345

Short DSA

https://oj.masaischool.com/contest/8089?password=w3m4r1

Mock 4

Java Core

https://oj.masaischool.com/contest/8093?password=zoom001

Short Dsa

Long Dsa

https://oj.masaischool.com/contest/8086?password=w3m4r2

Java Core

https://oj.masaischool.com/contest/8121?password=astro6663

Mock 5

Short Dsa

https://oj.masaischool.com/contest/8119?password=w3m5r1

LongDsa

https://oj.masaischool.com/contest/8118/problems

w3m5r3

Mock 6

Long Dsa

https://oj.masaischool.com/contest/8162?password=w4m6r2

Short Dsa

https://oj.masaischool.com/contest/8161?password=w4m6r1

Mock 7

Long Dsa

https://oj.masaischool.com/contest/8191/problem/301

W4m7r3

Short Dsa

Link : https://oj.masaischool.com/contest/8193

Password : w4m7r2

Java Core

https://oj.masaischool.com/contest/8201?password=w4m7r4

Mock 8

Short Dsa

https://oj.masaischool.com/contest/8216?password=w4m8r1

Long dsa

https://oj.masaischool.com/contest/8214?password=w4m8r4

Mock 9

Long Dsa

https://oj.masaischool.com/contest/8275?password=w5m9r2

Short

https://oj.masaischool.com/contest/8274?password=w5m9r1

Java Core

https://oj.masaischool.com/contest/8288?password=w5m9r4

Mock 10

Short DSA

https://oj.masaischool.com/contest/8302?password=w5m10r1

Long Dsa

https://oj.masaischool.com/contest/8303?password=w5m10rx

Java Core

https://oj.masaischool.com/contest/8307?password=w5m10r4

Mock 11

Short Dsa

https://oj.masaischool.com/contest/8329?password=w5m11r1

Long Dsa

https://oj.masaischool.com/contest/8325?password=w5m11r3

Java Core

https://oj.masaischool.com/contest/8335?password=w5m11r4

Mock 12

Short

https://oj.masaischool.com/contest/8361?password=w6m12r1

Long Dsa

https://oj.masaischool.com/contest/8358?password=w6m12r3

Java Core

https://oj.masaischool.com/contest/8365?password=w6m12r4

Mock 13

Short Dsa

https://oj.masaischool.com/contest/8409?password=w6m13r1

Long Dsa

https://oj.masaischool.com/contest/8406?password=w6m13r2

Java Core

https://oj.masaischool.com/contest/8400?password=w6m13r4

Mock 14

Short

https://oj.masaischool.com/contest/8431?password=w6m14r1

Long

https://oj.masaischool.com/contest/8428?password=w6m14r2

Java Core

https://oj.masaischool.com/contest/8423?password=w6m14r4

Mock 15

Short Dsa

https://oj.masaischool.com/contest/8484?password=w7m15r1

Temp

0,1,2,3

Index–1-m

1-0+1–size 1=2

3-1–size 2=2

1,3,5,2,7,5

i==0 prevmin=0 prevmax=-1 0,(0,-1)-(-1)⇒0,-1+1

i==1 prevmin=0 prevmax=-1 0,(0,-1)-(-1)⇒0,-1+1

i==2 prevmin=0 prevmax=2 0,(0,2)-(-1)=>0,0+1

Example—[1,5,3,4,2]—translates to [1,5] —>[1,5,3],[1,5,3,4],[1,5,3,4,2]

If

[2,1,5,3,4,2]---we would have two combinations for each—[1,5,3] and [2,1,5,3]]

https://leetcode.com/discuss/interview-question/3164322/60-recently-asked-problems-in-de-shaw-in-last-6-months

https://oj.masaischool.com/contest/7237/problems

29910—- 9 mock round 3

https://oj.masaischool.com/contest/7226/problems

29188—10th mock round 3

https://oj.masaischool.com/contest/7251/problems

28918-8 mock rouck

https://oj.masaischool.com/contest/7122/problems

29991-7 mock

https://www.techiedelight.com/data-structures-and-algorithms-problems/

Top Interview Questions - LeetCode

https://www.techiedelight.com/coin-change-problem-find-total-number-ways-get-denomination-coins/

https://walkccc.me/LeetCode/problems/0543/

https://neetcode.io/practice

https://leetcode.com/problems/longest-nice-subarray/

Question Whose time complexity not met

- **(https://www.geeksforgeeks.org/longest-palindrome-substring-set-1/)question requirement is a boolean table//https://www.youtube.com/watch?v=nbTSfrEfo6M**

https://oj.masaischool.com/contest/7614?password=triggered_code—421

https://oj.masaischool.com/contest/7628/problems-20103

https://oj.masaischool.com/contest/7738/problems-20104

https://oj.masaischool.com/contest/7727/problem/05

pass-dwljy8129

Incomplete question

- https://oj.masaischool.com/contest/6921/problem/01-Boss and his array
- https://oj.masaischool.com/contest/6921/problem/02-Impress the boss
- https://oj.masaischool.com/contest/6656/problem/01
- https://oj.masaischool.com/contest/7826/problem/05-Dreamplay
- https://oj.masaischool.com/contest/6921/problem/04-Addition, Subtraction and its Cost
- https://oj.masaischool.com/contest/7369/problem/02-Friends Party
- **(https://oj.masaischool.com/contest/5902/problem/3)--Notoviruus(fi893ojf3)**
- **Speed Test-https://oj.masaischool.com/contest/5870/problem/01(sdjk7230)**
- **Bored in Vacation-https://oj.masaischool.com/contest/6208/problem/05**
- **Validator**
- **Hard working EMployee**
- **He has n friends numbered from 1 to n. They will be arranged in a queue as follows: 1,2,3,…,n. Akhil has a list of m pairs of his friends that don't know each other. Any pair not present in this list are friends. A subsegment of the queue**

starting from the friend a and ending at the friend b is [a,a+1,a+2,…,b]. A subsegment of the queue is called good when all pairs of that segment are friends. Akhil wants to know how many pairs (a,b) there are (1≤a≤b≤n), such that the subsegment starting from the friend a and ending at the friend b is good.

Search this on google

-
-

#Note

- For traversing in while and repeat a variable (dir=(dir+1)%4)
- If property of undefined is there even after single elements are printed there is mistake in loop
- For substring do this–{t=t+arr[i],a.push} and loop is (i=0→n and j=i→n)
- If you sort a number by making it string don't print sorted number
- See the placement of break
- See if the second loop from j=i or j=i+1
- If an“if” condition doesn’t run see if it is wrapped in another loop
- See if you have to delete the occurrence when searching something
- Don’t sort if no of subarray asked
- Always push product index in array
- Striver’s SDE Sheet – Top Coding Interview Problems (takeuforward.org)

How is Time Complexitiy measured

By counting the number of algorithms in an algorithm

https://nados.io/content/data-structures-and-algorithms

https://practice.geeksforgeeks.org/topic-tags

Functions

```
1. Object.keys(obj).length
```

```
2. arr.splice(pos,1)//use i-- for multiple occurence removal
3. x=Math.max(a,b) returns larger value of two
4.
```

https://www.techiedelight.com/length-of-smallest-subarray-with-sum-greater-number/

https://leetcode.com/tag/two-pointers/

https://leetcode.com/tag/sliding-window/

Linearithmetic

Coding Practice Time(https://oj.masaischool.com/contest/6444/problem/08)

https://www.geeksforgeeks.org/split-the-given-array-into-k-sub-arrays-such-that-maximum-sum-of-all-sub-arrays-is-minimum/?ref=lbp

Description

Sandhya is going to practice N different problems in the exact given order over the next M days. For each problem, she writes down the amount of time q[i] she will take to think and code the i-th problem.
Before starting on the problems, she took advice from experienced competitive programmers on her practice routine and almost all of them advised her to keep her daily load at the minimum possible and avoid over training.
Since she already has N problems to solve, she asks you to find the minimum time T such that training everyday for a time t[i]<T is sufficient to solve all the N problems in M days.
Note : Unlike in real world, you cannot think on a problem on one day and solve it on the other day. You need to do it on the very same day!

Input

Input Format :
The first line contains two space separated integers N and M. The next line contains N space separated integers denoting the time q[i] required to solve the i-th problem.
Constraints :
N <= 100000
M < N
q[i] <= 1000000000000

Output

The output consists of one integer, the minimum time T as described in the problem statement.

Sample Input 1

```
5 3
1 2 2 1 3
```

Sample Output 1

```
3
```

```
function check(mid, array, n, K)
{
    var count = 0;
    var sum = 0;
    for (var i = 0; i < n; i++) {

        // If individual element is greater
        // maximum possible sum
        if (array[i] > mid)
```

```
            return false;

        // Increase sum of current sub - array
        sum += array[i];

        // If the sum is greater than
        // mid increase count
        if (sum > mid) {
            count++;
            sum = array[i];
        }
    }
    count++;

    // Check condition
    if (count <= K)
        return true;
    return false;
}

// Function to find maximum subarray sum
// which is minimum
function solve(array, n, K)
{
    var max = Math.max(...array)
    var start = max; //Max subarray sum, considering subarray of length 1
    var end = 0;

    for (var i = 0; i < n; i++) {
        end += array[i]; //Max subarray sum, considering subarray of
length n
    }

    // Answer stores possible
    // maximum sub array sum
    var answer = 0;
    while (start <= end) {
        var mid = parseInt((start + end) / 2);

        // If mid is possible solution
        // Put answer = mid;
        if (check(mid, array, n, K)) {
            answer = mid;
            end = mid - 1;
        }
        else {
            start = mid + 1;
        }
    }

    return answer;
}
```

Prime Number Square Root

```
function checkp(num){
    if(num<=1){
        return false
    }
    for(i=2;i<=num**0.5;i++){
        if(num%i==0){
            return false
        }
    }
    return true
}
console.log(checkp(1))
```

String Matrix(https://oj.masaischool.com/contest/5291/problem/06)

Description

You are given a matrix of characters. The matrix has N rows and M columns. Given a string s, you have to tell if it is possible to generate that string from the given matrix.

Rules for generating string from the matrix are:

1. You have to pick the first character of string from row 1, the second character from row 2 and so on. The (N+1)th character of the string is to be picked from row 1, that is, you can traverse the rows in a cyclic manner (row 1 comes after row N).

2. If an occurrence of a character is picked from a row, you cannot pick the same occurrence again from that row.

You have to print Yes if a given string can be generated from the matrix using the given rules, else print No.

Input

Input Format

First line consists of T, denoting the number of test cases.

Each test case consists of:

First line consists of two integers N and M, denoting the matrix dimensions.

Following N lines consist of M characters each.

The last line consists of a string s.

Constraints

T <= 5

N,M <= 500

Length of string < N*M

The matrix consists of lowercase English characters.

String s consists of lowercase English characters.

Output

For each test case, print "Yes" if the string can be generated else print "No". Answer for each test case should come in a new line.

Input

1

3 3

Aba

Xyx

Bdr

axbaydb

Sample Output 1

Yes

Hint

Sample 1 Explanation

We pick "a" from row 1. Now, we can only pick one more "a" from row 1 as one "a" is already used.

Similarly, "x" from row 2, "b" from row 3.

Now, we again go back to row 1.

We pick "a" from row 1, "y" from row 2 and so on.

```
1
3 3
Aba
Xyz
Bdr
```

```
axbaydb
```

```
###you have to travel each row and check string meaning a should come from
1st row,x should come from 2nd row…..
###important part in the question is you have to decrement the occurences



function self(x,y,arr,arr1){
    // console.log(x,y,arr,arr1)
    i=0
    s=0
    for(i=0;i<arr1.length;i++){
        // console.log(s,"perloop")
        count=0
    for(j=0;j<y;j++){

        if(arr1[i]==arr[s][j]){
            arr[s][j]=''
            // console.log(s,i,arr1[i])
            s++
            count=1
            break
        }

    }
    if((s%x==0)){
            s=0
        }
    if(count==0){
        break
```

```
        // console.log(i,arr1[i])
    }

}
if(count==1){
console.log("Yes")
}
else{
    console.log("No")
}
}




function runProgram(input){
    input=input.split('\n')
    tc=+(input[0])

    line=1
for(a=0;a<tc;a++){
    arr=[]
    size=+(input[line].split(' ')[0])
    size1=+(input[line].split(' ')[1])
    line++
for(b=0;b<size;b++){
    arr.push(input[line].split(''))
    line++
}
arr1=input[line].split('')
line++
self(size,size1,arr,arr1)
}}
```

Sabahttps://oj.masaischool.com/contest/5291/problem/03)

```
\\
for(int i=0;i<n;i++)
    {
        for(int j=0;j<m;j++)
        {
            if(s[i][j]=='s')
            {
                // for checking in horizontal direction
                if(j+3<m)
                {
                    if(s[i][j]=='s' && s[i][j+1]=='a' && s[i][j+2]=='b' &&
s[i][j+3]=='a')
                        ans++;
                    // for checking in downward direction
```

```
                    if(i+3<n)
                    {
                        if(s[i][j]=='s' && s[i+1][j+1]=='a' &&
s[i+2][j+2]=='b' && s[i+3][j+3]=='a')
                            ans++;

                    }
                }
                // for checking in vertical direction
                if(i+3<n)
                {
                    if(s[i][j]=='s' && s[i+1][j]=='a' && s[i+2][j]=='b' &&
s[i+3][j]=='a')
                        ans++;

                }

                //  for checking in upward diagonal
                if((i-3)>=0 && (j+3)<m)
                {

                    if(s[i][j]=='s' && s[i-1][j+1]=='a' &&
s[i-2][j+2]=='b' && s[i-3][j+3]=='a')
                            ans++;


                }
            }
        }
    }
```

Mike Single(https://oj.masaischool.com/contest/5301/problem/3)

```
function runProgram(input){
    input=input.split('\n')
    size=+(input[0].trim().split(' ')[0])
    var tc=+(input[0].trim().split(' ')[1])
    var arr=input[1].trim().split(' ').map(Number)
    var mat=[]
    line=2
    sum=0
    ar=[]
    countx=0
    county=0
    count=0
    for(i=0;i<size;i++){
        sum=sum+arr[i]
    }
    for(var q=0;q<tc;q++){

        x=+(input[line].trim().split(" ")[0])
        // console.log(x)
       if(x==1){
```

```
        //   console.log(1)
          y=+(input[line].trim().split(" ")[1])
          z=+(input[line].trim().split(" ")[2])
          if(count==0){
          sum=sum+z-arr[y-1]
          arr[y-1]=z
          }
        //   arr[y]=z
            else{
                // console.log(sum,h,z)
            if(ar[y-1]>0){
            sum=sum+z-ar[y-1]
            ar[y-1]=z
            // h=z
            }
            else{
            sum=sum+z-h
            ar[y-1]=z
            }
        }
            }

       else if(x==2){
           ar=[]
          count++
        //   console.log(2)
           y=+(input[line].trim().split(" ")[1])
            // console.log(y)
            sum=(y*size)
            h=y

      }
      console.log(sum)
       line++
    }
}
------------------
Mike in array{
    function self(p,arr,m){
        g=0
        // console.log(p)
        for(i=0;i<p;i++){
            if(m[i][0]==1){
                x=m[i][1]
                y=m[i][2]
                arr[x-1]=y
            }
            else if(m[i][0]==2){
            g=m[i][1]
            for(z=0;z<arr.length;z++){
                arr[z]=g
            }
```

```
            }
            // console.log(arr)
            sum=0
            for(l=0;l<arr.length;l++){
                sum=sum+arr[l]
            }
            console.log(sum)
        }
    }
----------------------------------
```

Spirally Traversing a Matrix

(https://oj.masaischool.com/contest/5255/problem/5)

Description

Given a matrix of size n by n. Traverse and print the matrix in spiral form.

Input

Input Format

First-line contains n

The next n lines contain the matrix

Constraints

n <= 1000

Ai <= 10000

Output

```
function spirallyTraversingAMatrix(N, m){

//write code here

    top=0
    down=N-1
```

```
  left=0
  right=N-1
  r=0
  c=0
  dir=0
  t=[]
  t.push(m[top][c])
while(top <=down && left<=right){
    if(dir==0){
        c++
        while(c<=right){

           t.push(m[top][c])
              c++
        }
        c--
        top++
    }

    if(dir==1){
        r++
        while(r<=down){

           t.push(m[r][right])
            r++
        }
        r--
        right--
    }

    if(dir==2){
        c--
        while(c>=left){

           t.push(m[down][c])
            c--
        }
        c++
        down--
    }
    if(dir==3){
        r--
        while(r>=top){

           t.push(m[r][left])
           r--
        }
        r++
        left++
    }
   dir=(dir+1)%4

}
console.log(t.join(' '))
```

```
}
--------------------
Through For loop
function spiralTraversalV(N, m){
    top=0
    down=N-1
    left=0
    right=N-1
    t=''
    console.log(t,N,m)
    while(top<=down && left<=right){
    for(i=top;i<=down;i++){
     //   console.log(m[i][left])
        t=t+m[i][left]
    }
    left++

    for(j=left;j<=right;j++){
       t=t+m[down][j]
    }
    down--
 //   console.log(down,top)
    for(k=down;k>=top;k--){
        t=t+m[k][right]
    }
    right--
    for(l=right;l>=left;l--){
        t=t+m[top][l]
    }
    top++
 }
 }
```

RotateElements(https://oj.masaischool.com/contest/5255/problem/6)

Description

Given a n by n matrix. You have to rotate the elements of each ring of the matrix in the clockwise direction one place.

Input

Input Format

First line will contain a single number n

Next n lines will contain the matrix

Constraints

n<=1000

Elements of the matrix <=10000

Output

You have to display the rotated matrix

Sample Input 1

```
4
1 2 3 4
1 2 3 4
1 2 3 4
1 2 3 4
```

Sample Output 1

```
1 1 2 3
1 2 2 4
1 3 3 4
2 3 4 4
```

```
function self(n,mat){
    //console.log(n,mat)
    top=0
    down=n-1
    left=0
    right=n-1
    dir=0
    t=''
    pr=1
    pc=0
    r=0
    c=0
    count=0
    cur=0
    prev=0

while(top <=down && left<=right){

    if(dir==0){
        //console.log(r,c)
        prev = mat[r+1][c]
        while(c<=right){
          if(top== Math.ceil((n-1)/2)){
              count=1
              break
          }
          else{

       cur=mat[r][c]
       mat[r][c]=prev
       prev=cur
```

```
       c++
       }

        }
          }
        if(count==1){
            break
        }

    c--
    top++
    }

    if(dir==1){
        r++
        while(r<=down){
      //console.log("1",cur,prev)
       cur=mat[r][c]
       mat[r][c]=prev
       prev=cur
      //console.log("2",cur,prev)
            r++
        }
        r--
        right--
    }

    if(dir==2){
        c--
        while(c>=left){

      cur=mat[r][c]
       mat[r][c]=prev
       prev=cur
            c--
        }
        c++
        down--
    }
    if(dir==3){
        r--

        while(r>=top){
          //  console.log("1",cur,prev,r,c)
       cur=mat[r][c]
       mat[r][c]=prev
       prev=cur
       //console.log("2",cur,prev,r)
           r--
        }
        r++
        left++
    }
   dir=(dir+1)%4
   count++
   if(count%4==0){
       c++
   }
}

for(i=0;i<n;i++){
    r=''
    for(j=0;j<n;j++){
        r=r+mat[i][j]+' '
    }
    console.log(r)
  //console.log(mat)
```

```
}
}
---------
Through for loop
function self(n,a){
    // console.log(n,a)
    top=0
    down=n-1
    left=0
    right=n-1
    prev=0
    while(top<down && left<right){
    prev=a[top+1][left]
    for(i=left;i<=right;i++){
        cur=a[top][i]
        a[top][i]=prev
        prev=cur
    }
    top++
    for(j=top;j<=down;j++){
        cur=a[j][right]
        a[j][right]=prev
        prev=cur
    }
    right--
    for(k=right;k>=left;k--){
        cur=a[down][k]
        a[down][k]=prev
        prev=cur
    }
    down--
    for(l=down;l>=top;l--){
        cur=a[l][left]
        a[l][left]=prev
        prev=cur
    }
    left++


}
// console.log(a)
for(i=0;i<n;i++){
    t=""
    for(j=0;j<n;j++){
        t=t+a[i][j]+" "
    }
    console.log(t)
}
}
```

ASCII(https://oj.masaischool.com/contest/5379/problem/03)

Sample Input 1

All-convoYs-9-be:Alert1.

4

Sample Output 1

Epp-gsrzsCw-3-fi:Epivx5.

Hint

Sample 1 Explanation

A becomes E, Y becomes C, 9 becomes 3,

-, . unchanged

```
function self(s, n){

    t=''
    for(i=0;i<s.length;i++){
        z=s[i].charCodeAt()
       if(z>=48 && z<=57){

           if(z+n>57){
               e=((z+n)-57)%10
               if(n==10 && z==57 || e==0){
                   t=t+s[i]
               }

               else{
               e=((z+n)-57)%10
               e=47+e
               t=t+String.fromCharCode(e)
               }
```

```
            }
            else{
                e=z+n
                t=t+String.fromCharCode(e)

            }
        }
        else if(z>=97 && z<=122){
            if(z+n>122 ){
                e=(z+n-122)%26
                if(n==26 && z==122 || e==0){
                    t=t+s[i]
                }
                else{
                e=(z+n-122)%26
                e=96+e
                t=t+String.fromCharCode(e)
            }
            }

            else{
                e=z+n
                t=t+String.fromCharCode(e)
            }
        }
        else if(z>=65 && z<=90){
            if(z+n>90 ){
                e=(z+n-90)%26
                if(n==26 && z==90 || e==0){
                    t=t+s[i]
                }
                else{
                e=(z+n-90)%26
                e=64+e
                t=t+String.fromCharCode(e)
            }
            }

            else{
                e=z+n
                t=t+String.fromCharCode(e)
            }
        }
        else{
            t=t+s[i]
        }
     }
     console.log(t)
    }
```

Bubble Sort

```
a=[7,1,9,2,4,6,5,3]
n=a.length
for(i=0;i<=n-2;i++){
  is=0
  for(j=0;j<=n-i-2;j++){
    if(a[j]>a[j+1]){
      is=1
      temp=a[j]
      a[j]=a[j+1]
      a[j+1]=temp
    }
  }
  if(is==0){
      break
    }
}
console.log(a)
```

Selection Sort

```
a=[7,1,9,2,4,6,5,3]
n=a.length
for(i=0;i<=n-2;i++){
  min=i
  for(j=i+1;j<n;j++){
    if(a[min]>a[j]){
      min=j
    }
    temp=a[i]
    a[i]=a[min]
    a[min]=temp
  }
}
console.log(a)
```

Game of array!(https://oj.masaischool.com/contest/5485/problem/03)

Description

Pavan is very fond of numbers.He made an array of numbers of length N, and he wants to know the pattern after rotating it to the left by k times. He got confused in the middle since the array is very big can you help him to find the rotated array?

Input

First line consists of two integers N and k separated by space,
Second line contains an array of N integers separated by space.
1 <= N,k <= 10^6

Output
Print output array after k rotations.
Sample Input 1
6 4
1 2 5 4 0 6
Sample Output 1
0 6 1 2 5 4

```
function self(n,m,a){
    z=[]
        for(i=0;i<n;i++){
            k=m%n
            z[i]=a[(i+k)%n]
        }
    console.log(z.join(" "))
    }
To rotate elements in the left direction you need to pick elements from
ahead

To rotate elements in right direction you need to pick elements from
behind
k=n-m%n
z[i]=a[(i+k)%n]
```

var arr = [];
arr[0] = "Jani"; arr[1] = "Hege"; arr[2] = "Stale"; arr[3] = "Kai Jim"; arr[4] = "Borge";

console.log(arr.join()); // Jani,Hege,Stale,Kai Jim,Borge

arr.splice(2, 0, "Lene"); console.log(arr.join()); // Jani,Hege,Lene,Stale,Kai Jim,Borge

Stack Push Pop(https://oj.masaischool.com/contest/5621/problem/01)

```
function self(n,a){
    // console.log(n,a)

    ar=[]
    t=-1
for(i=0;i<n;i++){
if(a[i][0]==1){
    x=(push(ar,a[i][1],n,t))
    t=x
```

```
}
else if(a[i][0]==2){
    y=(pop(ar,t))
    t=y

}
else if(a[i][0]==3){
    console.log(peek(ar,t))
}

}
function push(ar,d,n,t){

    if(t==n-1){
        return n-1
    }
    t++
    // console.log("Enter Push",t)
    ar[t]=d
    return(t)

}
function pop(ar,t){
    // t=ar.length-1

    if(t==-1){
        return -1
    }
    t--
    // console.log("exit pop",t)
    return(t)

}
function peek(ar,t){

    // console.log("enter Peek",t)
    if(t==-1){
        return ("Empty!")
    }
    return(ar[t])

}
}
```

Girl With Arrays(https://oj.masaischool.com/contest/5590/problem/1-3)

Girl with Arrays Ended

Description

- There is a sequence that contains one 0, A={0}.`mita`, is given a string of length N, S=s1 s2 …sN , consisting of L and R.
- For each i=1,2,…,N in this order,`mita`will do the following,

- If$_{si}$ is L, insert i to the immediate left of i−1 in A.If$_{si}$ is R, insert i to the immediate right of i−1 in A.
- You have to declare an array with the name$_{mita}$, having the contents of the final array

Input

Input Format

The first line contains the length of string , N

The second line contains the string S

Constraints

1<=N<=10^6

Output

Print the final contents of A, in a variable with the name$_{mita}$

Sample Input 1

```
5
LRRLR
```

Sample Output 1

```
1 2 4 5 3 0
```

Hint

Initially, A=(0).

S1 is L, which makes it A=(1,0).

S2 is R, which makes it A=(1,2,0).

S3 is R, which makes it A=(1,2,3,0).

S4 is L, which makes it A=(1,2,4,3,0).

S5 is R, which makes it A=(1,2,4,5,3,0).

```
function self(n,str){
    let count=1;
      let arr=[0];
      let z=0
      for(let i=0; i<n; i++)
      {
          if(str[i]=="L")
          {
              arr.splice(z,0,count)

          }
          else if(str[i]=="R")
          {
              z++
              arr.splice(z,0,count)
          }
          count++;
      }
      console.log(arr.join(" "))

  }
----------------------------------------
function self(n,a){
    z=[]
    z[0]=0
    f=0
    curr=0
    for(i=0;i<n;i++){
```

```
        if(a[i]=="L"){
            prev=0
        for(j=0;j<z.length;j++){
            if(z[j]==i){
             f=j
            //  console.log(f)
             break
            }
        }
        v=(z.length)
        for(h=f;h<=v;h++){
            curr=z[h]
            z[h]=prev
            prev=curr
            // console.log(curr,z[h],prev)
        }
      z[f]=i+1
    //   console.log(z)
    }
    if(a[i]=="R"){
        prev=0
        for(j=0;j<z.length;j++){
            if(z[j]==i){
               f=j
            //   console.log(j)
               break
            }

        }

        v=(z.length)
        // console.log(v,f)
        for(h=f+1;h<=v;h++){
            curr=z[h]
            z[h]=prev
            prev=curr
            // console.log(curr,z[h],prev)
        }
      z[f+1]=i+1

    }


}
 console.log(z.join(" "))
}
```

Reward to a hard working employee(https://oj.masaischool.com/contest/6444/problem/05)

Description

Rahul is a hard-working employee. So, his boss decided to promote him.Rahul was overjoyed about getting to know this. But soon he realized he needed to shift to another Town X.

Rahul needed to transport his n boxes to Town X for which he contacted the company "Packers and Movers".This company sent him m trucks. Each truck took 1 hour to go from his house to Town X and another 1 hour to return.

But each truck could carry only 1 box at a time and also each truck has a limit for the maximum weight of the box it can carry.

A truck can be used multiple times. Find the minimum time in which he can transfer all his n boxes to Town X.

Input

Input Format:

The first line contains 2 integers n and m.

The next line contains n integers denoting the weight of each box.

This is followed by a line containing m integers denoting the maximum capacity of each truck.

Constraints:

1<=n,m<=10000

1<=weight of each box<=1000000

1<=maximum capacity of each truck<=1000000

Output

Print the minimum time to transfer all the boxes to Town X.

Note: Test cases are such that a solution always exist.

Sample Input 1

```
7 2
10 2 16 19 6 11 5
29 25
```

Sample Output 1

```
7
```

Hint

Explanation to Sample test case:

The first truck carries the first box and then return to the house in 2 hours again carries the 2nd box and return and again the 3rd box and return taking a total of 6 hours.

The second truck similarly carries the next 3 boxes and return to the house in 6 hours. In the 6th hour, one of the two truck gets loaded with the 7th box and reaches Town X with the last box at the 7th hour.

```
function self(n,m,a,a2){
    // console.log(n,m,a,a2)
    a.sort((a,b)=>(b-a))
    a2.sort((a,b)=>(b-a))
c=0

    // console.log(n,m,a,a2)
   while(a.length!=0){
       for(i=0;i<a2.length;i++){
           for(j=0;j<a.length;j++){
           if(a[j]<=a2[i]){
               a.splice(j,1)
               break
           }

       }
       }
       c++

   }

   console.log((c*2)-1)
}
-------------------------------------------------
Trucks can go simultaneously the solution fails to recognize that
Only chceks the highest elements it can give lower weight box to
Truck with less capacity
function self(n,m,a,a2){
    // console.log(n,m,a,a2)
    a.sort((a,b)=>(a-b))
    a2.sort((a,b)=>(a-b))
c=0
    a.reverse()
    a2.reverse()
    // console.log(n,m,a,a2)
   while(a.length!=0){
       for(i=0;i<a2.length;i++){
           if(a[a.length-1]<=a2[i]){
               a.pop()

           }

       }
       c++

   }
   console.log((c*2)-1)
```

```
}
```