Problem 01

You are given an integer n or –n .If you are given n , print n to –n , if you are given –n, print –n to n.

See the sample output for more clarification.

Sample Input :   **Sample Output :**

5   5 4 3 2 1 0 -1 -2 -3 -4 -5

-4   -4 -3 -2 -1 0 1 2 3 4

Problem 02

Print the following pattern

For example n = 4

```
   ****
  ****
 ****
****
```

Sample Input :

5

Sample Output :

```
   *****
  *****
 *****
 *****
*****
```

Problem 03

You are given a positive integer n and after that a positive integer array of size n. Now print the sum of last digit of the given n integers.

Sample Input :

5

22 44 143 101 12

Sample Output :

Sum = 12

Problem 04

You are given a string S .Remove all the repeated character from the given string. You can't change the order of the character in the time of printing. See the sample output for more clarification.

Sample Input:

dddaaabccdffgzzza

Sample Output:

dabcdfgza

Problem 05

You are given a operator as a character + or – or * or / . You are also given two positive integers a and b after that.

Now perform addition or subtraction or multiplication or division on the basis of the given input. You can subtract

a-b or b-a …similarly for others operators also.

Sample Input :   **Sample Output :**

*

10 4   40

Problem 06

You are given a year , you need to tell whether the given year is a leap year or not. If the given year is a leap year print YES otherwise print NO.

Note - A leap year is a year, occurring once every four years, which has 366 days including 29 February as an intercalary day.

Sample Input 1:

2016

Sample Output 1:

YES

Sample Input 2:

2017

Sample Output 2:

NO

Sample Input 3:

2024

Sample Output 3:

YES

Codeforces Problem Link –

1) https://codeforces.com/problemset/problem/1742/A

2) https://codeforces.com/problemset/problem/1204/B

3) https://codeforces.com/problemset/problem/369/A

```c
// Problem 01
#include <stdio.h>
int main(){
    int N, i;
    scanf("%d", &N);
    if(N>0){
        for(i=N; i>=(N*-1); i--)
            printf("%d ", i);
    }
    else{
        for(i=N; i<=(N*-1); i++)
            printf("%d ", i);
    }
    return 0;
}
```

```c
// Problem 02
#include <stdio.h>
int main(){
    int N, i, j;
    scanf("%d", &N);
    for(i=1; i<=N; i++){
        for(j=i; j<N; j++){
            printf(" ");
        }
        for(j=1; j<=N; j++){
            printf("*");
        }
        printf("\n");
    }
    return 0;
}
```

```c
// Problem 03
#include <stdio.h>
int main(){
    int N, i, sum=0;
    scanf("%d", &N);
    int arr[N];
    for(i=0; i<N; i++){
        scanf("%d", &arr[i]);
    }
    for(i=0; i<N; i++){
        sum += arr[i] % 10;
    }
    printf("Sum = %d", sum);
    return 0;
}
```

```c
// Problem 04
#include <stdio.h>
int main(){
    int i;
    char str[100], cha;
    scanf("%s", &str);
    for(i=0; str[i]!= '\0'; i++){
        if(str[i] != cha){
            printf("%c", str[i]);
            cha = str[i];
        }
    }
    return 0;
}
```

```c
// Problem 05
#include <stdio.h>
int main(){
    char sign;
    scanf("%c", &sign);
    int a, b, num;
    scanf("%d %d", &a, &b);
    if(a > b){
        if(sign == '+')
            num = a + b;
        else if(sign == '-')
            num = a - b;
        else if(sign == '*')
            num = a * b;
        else if (sign == '/')
            num = a / b;
    }
    else{
        if(sign == '+')
            num = a + b;
        else if(sign == '-')
            num = b - a;
        else if(sign == '*')
            num = a * b;
        else if (sign == '/')
            num = b / a;
    }
    printf("%d", num);
    return 0;
}
```

```c
// Problem 06
#include <stdio.h>
int main(){
    int N;
    printf("Year = ");
    scanf("%d", &N);
    if((N%4 == 0 && N%100 != 0) || N%400 ==
0)
        printf("YES");
    else
        printf("NO");
    return 0;
}
```

```c
// Sum: Codeforces
#include <stdio.h>
int main(){
    int test_case, num1, num2, num3;
    scanf("%d", &test_case);
    while(test_case--){
        scanf("%d %d %d", &num1, &num2,
&num3);
        if(num1+num2==num3 ||
num1+num3==num2 || num2+num3==num1)
            printf("YES\n");
        else
            printf("NO\n");
    }
    return 0;
}
```

```c
// Mislove has lost an array: Codeforces
#include<stdio.h>
int main(){
    int n,l,r,t,i,sum;
    scanf("%d %d %d",&n,&l,&r);

    // Finding minimum
    t=1;
    sum=0;
    for(i=0; i<n; i++){
        sum=sum+t;
        if(i>=n-l)
            t=t*2;
    }
    printf("%d ",sum);
```

```c
    // Finding maximum
    sum=0;
    t=1;
    for(i=0; i<n; i++){
        sum=sum+t;
        if(i<r-1)
            t=t*2;
    }
    printf("%d ",sum);
}
```

```c
// Valera and Plates: Codeforces
#include<stdio.h>
int main(){
    int n,m,k,i,w=0;
    scanf("%d %d %d",&n,&m,&k);
    int a[1005];
    for(i=0; i<n; i++)
        scanf("%d",&a[i]);

    for(i=0; i<n; i++){
        if(a[i]==1 && m!=0)
            m--;
        else if(a[i]==2 && k!=0)
            k--;
        else if(a[i]==2 && k==0 && m!=0)
            m--;
        else if(a[i]==1 || a[i]==2 && (m==0 &&
k==0))
            w++;
    }
    printf("%d\n", w);
    return 0;
}
```