

212 # Dream's IT Job Solution

Write code for Fibonacci series with any structural programming language. [AP of ICB - 2017]

```
#include<stdio.h>
int main()
{
    int n, first = 0, second = 1, next, c;
    printf("Enter the number of terms\n");
    scanf("%d",&n);
    printf("First %d terms of Fibonacci series are :-\n",n);
    for ( c = 0 ; c < n ; c++ )
    {
        if ( c <= 1 )
            next = c;
        else
        {
            next = first + second;
            first = second;
            second = next;
        }
        printf("%d\n",next);
    }

    return 0;
}
```

Write a program to count number of bit difference. [AP of ICB - 2017]

```
#include <iostream>
using namespace std;
```

// Function that count set bits

```
int countSetBits(int n)
{
    int count = 0;
    while (n) // not equal to zero
    {
        count += n & 1; // bitwise AND with LSB
        n >>= 1; // rightshift one bit
    }
    return count;
}
```

// Function that return count of
// flipped-number

```
int FlippedCount(int a, int b)
{
    // Return count of set bits in
    // a XOR b
    ~return countSetBits(a^b);
```

```

}
// Driver code
int main()
{
    int a = 10;
    int b = 20;
    cout << FlippedCount(a, b) << endl;
    return 0;
}

```

count Set Bits ($a \wedge b$)

Find the mistake in the following program and write the correct form. [AP of ICB - 2017]

```

unsigned int i;
for(i=100; i<=0; --i)
printf("%d", i);

```

Answer:

Correct Form is following-

```

int i;
for(i=100; i>=0; i--)
printf("%d", i);

```

Write a program using any programming language that reads five numbers from keyboard and display the smaller, larger and average of those numbers. [SO IT of BDBL - 2017]

```

#include <iostream>
int main()
{
    int max = -1000;
    int min = -1000; + 10 000
    int temp = 0;
    int sum = 0;
    for (int i = 1; i <= 5; i++) {
        std::cout << "Enter Number " << std::to_string(i) << endl;
        input — std::cin >> temp;
        int n = temp;
        if (temp > max) {
            max = temp;
        }
        if (temp < min) {
            min = temp;
        }
        sum += n;
    }
    int avg = sum / 5;
    std::cout << "Largest Number : " + std::to_string(max);
    std::cout << "Smallest Number : " + std::to_string(min);
    std::cout << "Average of Number : " + std::to_string(avg);
    return 0;
}

```

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Write a computer program (C/C++/Java) that takes a positive integer N as input and finds out the sum of the digits repeatedly until the result is converged to a single digit; Sample Input: N=254189, Sample Output: 29 (first step), 11 (second step), 2 (final step). [Education Ministry – 2014]

```

#include<stdio.h>
#include<conio.h>
void main()
{
    int n,rem,sum = 0;
    printf("\nEnter a number : ");
    scanf("%d",&n);
    while(n > 0)
    {
        while(n != 0)
        {
            rem = n%10;
            sum = sum+rem;
            n=n/10;
        }
        if(sum > 9) // until
        {
            n= sum;
            sum = 0;
        }
    }
    printf("%d",sum);
    getch();
}

```

Write the program for finding out the highest, and lowest number among N numbers.
[Senior Computer Operator at Ministry of Cultural Affairs – 2012]

```

#include <iostream>
using namespace std;
void main ()
{
    int max=0,num,min=0;
    for (int i=0; num!= -1; i++)
    {
        cout<<"Enter the number <-1 to end input> ";
        cin>>num;
        if (num>max)
            max=num;
        if (num<min)
            min=num;
    }
    cout<<"largest number is: "<<max << endl;
    cout<<"smallest number is: "<<min << endl;
}

```

Write a C program for $1+2+\dots+n$ with $O(1)$ complexity and it will take n as input.
 [Programmer at Public Service Commission - 2009]

```
#include <stdio.h>
int main()
{
    int n, i, sum = 0;
    do {
        printf("Enter a positive integer: ");
        scanf("%d", &n);
    } while (n <= 0);
    for(i=1; i <= n; ++i)
    {
        sum += i; // sum = sum+i;
    }
    printf("Sum = %d", sum);
    return 0;
}
```

Write a C program that reads a positive integer, calculate the factorial number using recursion and print the result. [AP at Multiple Ministry - 2016 / Assistant Maintenance Engineer at the Department of ICT - 2014]

```
#include <stdio.h>
#include <stdlib.h>

int fact(int n){
    if(n < 0){
        return -1;
    }else if(n == 0){
        return 1;
    }else{
        return n * fact(n-1);
    }
}

int main()
{
    int in;
    printf("Enter Number: ");
    scanf("%d", &in);
    int result = fact(in);
    if(result < 0){
        printf("Please enter positive integer.\n");
    }else{
        printf("Factorial using recursion: %d\n", result);
    }
}
```

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```
int l, res=1;
if(in < 0){
    printf("Please enter positive integer.");
}else if(in == 0){
    res = 1;
    printf("Factorial of %d is %d", in, res);
}else{
    for(l=1; l<=in; l++){
        res = res * l;
    }
    printf("Factorial of %d is %d", in, res);
}
return 0;
}
```

Write a program to find out the GCD of two numbers. [Programmer at Public Service Commission – 2009]

```
#include <stdio.h>
#include <stdlib.h>

int main()
{
    int n1, n2, i, gcd=1;
    printf("Enter two number: ");
    scanf("%d %d", &n1, &n2);
    for(i=1; i<=n1 && i<=n2; i++){
        if(n1%i == 0 && n2%i == 0){
            gcd=i;
        }
    }
    printf("GCD: %d", gcd);
    return 0;
}
```

Palindrome Number Generation [PO at Dutch-Bangla Bank – 2016]

```
#include<stdio.h>

int main(){
    int num, rem, reverse_num, temp, start, end;
    printf("Enter the lower limit: ");
    scanf("%d",&start);

    printf("Enter the upper limit: ");
    scanf("%d",&end);
    printf("Palindrome numbers between %d and %d are: ",start,end);
    for(num=start;num<=end;num++){
        temp=num;
```

```

reverse_num=0;
while(temp){
    rem=temp%10;
    temp=temp/10;
    reverse_num=reverse_num*10+rem;
}
if(num==reverse_num)
    printf("%d ",num);
}
return 0;
}

```

Prime Number Check [Programmer at Bangladesh National Parliament Secretariat - 2014]

```

#include <stdio.h>
#include <stdlib.h>
int main()
{
    int in, i, isPrime=1;
    printf("Enter the Number: ");
    scanf("%d", &in);
    for(i=2; i<in; i++){
        if(in%i == 0){
            isPrime = 0;
            break;
        }
    }
    if(isPrime == 1){
        printf("%d is prime", in);
    }else{
        printf("%d is not prime", in);
    }
    return 0;
}

```

Write a program to read the coordinates of the end points of a line and to find its length.
Use a structure variable named 'Line' to store the relevant information about its end points.

[Assistant Programmer of Multiple Ministry - 2017]

```

#include <stdio.h>
#include <stdlib.h>
typedef struct calculate{
    float coordinate;
    float line_length;
} c;
c find_length(c x1, c x2, c y1, c y2);
int main()
{
}

```

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```
{  
    c x1, x2, y1, y2, temp;  
    printf("Enter the x co-ordinate of the first point");  
    scanf("%f", &x1.coordinate);  
    printf("Enter the y co-ordinate of the first point");  
    scanf("%f", &y1.coordinate);  
    printf("Enter the x co-ordinate of the second point");  
    scanf("%f", &x2.coordinate);  
    printf("Enter the y co-ordinate of the second point");  
    scanf("%f", &y2.coordinate);  
    temp = find_length(x1, x2, y1, y2);  
    printf("\nLength: %f", temp.line_length);  
    return 0;  
}  
c find_length(c x1, c x2, c y1, c y2){  
    c temp;  
    temp.line_length = sqrt((x2.coordinate-x1.coordinate)*(x2.coordinate-  
    x1.coordinate)+(y2.coordinate-y1.coordinate)*(y2.coordinate-y1.coordinate));  
    return temp;  
}
```

Write a program in C to calculate the sum of the series: $1 + (1+2) + (1+2+3) + \dots + (1+2+\dots+n)$. [Assistant Programmer of Multiple Ministry - 2017]

```
#include<stdio.h>  
int main()  
{  
    int n, sum=0, i, j;  
    printf("Please enter an integer, n = ");  
    scanf("%d", &n);  
    for(i=1; i<=n; i++){  
        for(j=1; j<=i; j++)  
            sum = sum + j;  
    }  
    printf("sum = %d", sum);  
    return 0;  
}
```

Write a program in C with recursive function to compute the value of x^n where n is a positive integer and x has a real value. [Assistant Programmer of Multiple Ministry - 2017]

```
#include <stdio.h>  
int power(int n1, int n2);  
int main()  
{  
    int base, powerRaised, result;
```

```

printf("Enter base number: ");
scanf("%d",&base);
printf("Enter power number(positive integer): ");
scanf("%d",&powerRaised);
result = power(base, powerRaised);
printf("%d^%d = %d", base, powerRaised, result);
return 0;
}

int power(int base, int powerRaised)
{
    if(powerRaised != 0)
        return (base*power(base, powerRaised-1));
    else
        return 1;
}

```

Write a program to check anagram.

```

#include <stdio.h>
#include <stdlib.h>
int main()
{
    char a[100], b[100];
    int f[26] = {0};
    int s[26] = {0};
    int i=0, j=0, l, isAnagram=1;
    printf("Enter first String: ");
    gets(a);
    printf("Enter second String: ");
    gets(b);
    while(a[i] != '\0'){
        f[a[i]-'a']++;
        i++;
    }
    while(b[j] != '\0'){
        s[b[j]-'a']++;
        j++;
    }
    for(l=0; l<26; l++){
        if(f[l] != s[l]){
            isAnagram=0;
            break;
        }
    }
    if(isAnagram == 1){

```

```
    printf("YES");
}else{
    printf("NO");
}
return 0;
}
```

Write a program for Armstrong Generation.

```
#include <stdio.h>
#include <stdlib.h>

int pow(int b, int p){
    int sum=1, i;
    for(i=1; i<=p; i++){
        sum = sum * b;
    }
    return sum;
}

int check_armstrong(int in){
    int i, j, digits=0, remainder, sum=0, input;
    input=in;
    j=in;
    while(input !=0){
        input = input/10;
        digits++;
    }

    for(i=1; i<=digits; i++){
        remainder = j%10;
        sum = sum + pow(remainder, digits);
        j = j/10;
    }

    if(in == sum){
        return 1;
    }else{
        return 0;
    }
}

int main()
{
    int in, i;
    printf("Enter number: ");
    scanf("%d", &in);
    for(i=1; i<=in; i++){
        if(check_armstrong(i) == 1){
            printf("%d, ", i);
        }
    }
}
```

```

    }
    return 0;
}

```

Write a program for Armstrong Checking.

```

#include <stdio.h>
#include <stdlib.h>

int pow(int b, int p){
    int sum=1, i;
    for(i=1; i<=p; i++){
        sum = sum * b;
    }
    return sum;
}

int main()
{
    int in, i, j, digits=0, remainder, sum=0, input;
    printf("Enter number: ");
    scanf("%d", &in);
    input=in;
    j=in;
    while(input !=0){
        input = input/10;
        digits++;
    }
    for(i=1; i<=digits; i++){
        remainder = j%10;
        sum = sum + pow(remainder, digits);
        j = j/10;
    }
    printf("Result: %d\n", sum);
    if(in == sum){
        printf("Armstrong");
    }else{
        printf("Not Armstrong");
    }
    return 0;
}

```

Character to ASCII

```

#include <stdio.h>
#include <stdlib.h>
int main()
{
    char in[20];

```

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```
int l;
printf("Enter the Character: ");
scanf("%s", &in);
printf("Inputted String: %s\n", in);
for(l=0; in[l]!='\0'; l++){
    printf("ASCII value of %c is %d\n", in[l], in[l]);
}
return 0;
}
```

Bubble Sort

```
#include <stdio.h>
#include <stdlib.h>

int main()
{
    int i, j, arr[20], c, n=5, temp;
    for(c=0; c<n; c++){
        scanf("%d", &arr[c]);
    }
    for(i=0; i<(n-1); i++){
        for(j=0; j<(n-i-1); j++){
            if(arr[j] > arr[j+1]){
                temp = arr[j];
                arr[j] = arr[j+1];
                arr[j+1] = temp;
            }
        }
    }
    for(c=0; c<n; c++){
        printf("%d ", arr[c]);
    }
    return 0;
}
```

Diamond Print

```
#include <stdio.h>
#include <stdlib.h>

int main()
{
    int in, i, temp, c, j, temp1;
    printf("Enter the number: ");
    scanf("%d", &in);
    temp=in;
    for(i=1; i<=in; i++){

```

```

for(c=1; c<=temp; c++){
    printf(" ");
}
temp--;
for(j=1; j<=(2*i)-1; j++){
    printf("*");
}
printf("\n");
}

temp=1;
for(i=in; i>=1; i--){
    for(c=1; c<=temp; c++){
        printf(" ");
    }
    temp++;
    for(j=1; j<=(2*i)-1; j++){
        printf("*");
    }
    printf("\n");
}
return 0;
}

```

Integer to Character

```

#include <stdio.h>
#include <stdlib.h>

int main()
{
    int in;
    int i = 0;
    char str[100];
    char rev_str[100];
    printf("Enter the Number: ");
    scanf("%d", &in);
    while(in > 0){
        int rem = in % 26;
        if(rem == 0){
            str[i] = 'Z';
            in = (in / 26) - 1;
        }else{
            str[i] = (rem - 1) + 'A';
            in = in / 26;
        }
        i++;
    }
}
```

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```
}

int length = i;
int j;
printf("Output: ");
for(j=0; j<length; j++){
    rev_str[j] = str[--i];
    printf("%c", rev_str[j]);
}
return 0;
}

LCM
#include <stdio.h>
#include <stdlib.h>
int gcd(int n1, int n2){
    int i, res=1;
    for(i=1; i<=n1 && i<=n2; i++){
        if(n1%i==0 && n2%i==0){
            res = i;
        }
    }
    return res;
}
int main()
{
    int n1, n2, lcm, max, l;
    printf("Enter two number: ");
    scanf("%d %d", &n1, &n2);
    max = (n1>n2) ? n1 : n2;
    while(1){
        if( max%n1 == 0 && max%n2 == 0 ){
            printf("LCM: %d", max);
            break;
        }
        ++max;
    }
    lcm = (n1*n2)/gcd(n1, n2);
    printf("\nLCM (AFTER GCD): %d", lcm);
    return 0;
}

Largest Among Three
#include <stdio.h>
#include <stdlib.h>
int main()
```

```

int first, second, third;
printf("Enter three numbers: ");
scanf("%d %d %d", &first, &second, &third);
if(first > second){
    if(first > third){
        printf("Largest: %d", first);
    }else{
        printf("Largest: %d", third);
    }
}else{
    if(second > third){
        printf("Largest: %d", second);
    }else{
        printf("Largest: %d", third);
    }
}
return 0;

```

Leap Year

```

#include <stdio.h>
#include <stdlib.h>

int main()
{
    int y;
    printf("Enter Year: ");
    scanf("%d", &y);
    if(y%4 == 0){
        if(y%100 == 0){
            if(y%400 == 0){
                printf("Y");
            }else{
                printf("N");
            }
        }else{
            printf("Y");
        }
    }else{
        printf("N");
    }
    return 0;

```

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Palindrome Number Check

```
#include <stdio.h>
#include <stdlib.h>

int main()
{
    int in, rem, res=0, n;
    printf("Enter the Number: ");
    scanf("%d", &in);
    n=in;
    while(in > 0){
        rem = in%10;
        res = res*10 + rem;
        in = in/10;
    }
    printf("Reversed Number is: %d\n", res);
    if(n == res){
        printf("Palindrome");
    }else{
        printf("Not Palindrome");
    }
    return 0;
}
```

Palindrome String Check

```
#include <stdio.h>
#include <stdlib.h>

int main()
{
    char in[20], out[20];
    int l, n=0, c=0, isP=1;
    printf("Enter the string: ");
    scanf("%s", &in);

    for(l=0; in[l]!='\0'; l++){
        n++;
    }

    for(l=(n-1); l>=0; l--){
        out[c] = in[l];
        c++;
    }

    printf("Reverse String: %s\n", out);

    for(l=0; l<(n-1); l++){
        if(in[l] != out[l]){

```

```

    isP = 0;
    break;
}
}
if(isP == 1){
    printf("Palindrome");
} else{
    printf("Not Palindrome");
}
return 0;
}

```

Pattern Print

```

#include <stdio.h>
#include <stdlib.h>
int main()
{
    int in, i, temp, c, j;
    printf("Enter the number: ");
    scanf("%d", &in);
    temp = in;
    for(i=1; i<=in; i++){
        for(c=1; c<=temp; c++){
            printf(" ");
        }
        temp--;
        for(j=1; j<=(2*i)-1; j++){
            printf("*");
        }
        printf("\n");
    }
    return 0;
}

```

Prime Number Generation

```

#include <stdio.h>
#include <stdlib.h>
int main()
{
    int in, i, j, isPrime=1, k=0;
    printf("Enter the Number: ");
    scanf("%d", &in);
    int prime[in];
    for(i=2; i<=in; i++){
        isPrime = 1;

```

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```
for(j=2; j<=i; j++){
    if(i%j == 0){
        isPrime = 0;
        break;
    }
}
if((isPrime == 0 && i==j) || isPrime == 1){
    prime[k] = i;
    k++;
}
for(i=0; i<k; i++){
    printf("%d ", prime[i]);
}
return 0;
}
```

Random Number

```
#include <stdio.h>
#include <stdlib.h>
int main()
{
    int i, n;
    for(i=1; i<=10; i++){
        n = rand() % 100 + 1;
        printf("%d ", n);
    }
    return 0;
}
```

Preprocessor Example

```
#include <stdio.h>
#include <stdlib.h>
#define X 4+3

int main()
{
int y;
y = X * 3;
printf("%d", y);
return 0;
}
```

Reverse Number

```
#include <stdio.h>
#include <stdlib.h>
int main()
{
```

```

int in, rem, res=0;
int arr[20];
printf("Enter the Number: ");
scanf("%d", &in);
while(in > 0){
    rem = in%10;
    res = res*10 + rem;
    in = in/10;
}
printf("%d", res);
return 0;
}

```

Structure for Addition

```

#include <stdio.h>
#include <stdlib.h>

typedef struct calculate{
    float number;
} c;
c add(c c1, c c2);

int main()
{
    c n1, n2, temp;
    printf("Enter Number 1: ");
    scanf("%f", &n1.number);
    printf("Enter Number 2: ");
    scanf("%f", &n2.number);
    temp = add(n1, n2);
    printf("\nSum: %f", temp.number);
    return 0;
}

c add(c c1, c c2){
    c temp;
    temp.number = c1.number + c2.number;
    return temp;
}

```

Structure to Store Data

```

#include <stdio.h>
#include <stdlib.h>

struct student{
    int roll;
    char name[20];
};

```

```
int main()
{
    struct student s;
    printf("Enter Name: ");
    scanf("%s", &s.name);
    printf("\nEnter Roll: ");
    scanf("%d", &s.roll);
    printf("Name: %s, Roll: %d", s.name, s.roll);
    return 0;
}
```

Swap Using Pointer

```
#include <stdio.h>
#include <stdlib.h>
void swap(int *a, int *b);
int main()
{
    int a, b;
    printf("Enter two number: ");
    scanf("%d %d", &a, &b);
    swap(&a, &b);
    printf("After swapping a: %d, b: %d", a, b);
    return 0;
}
void swap(int *a, int *b){
    int temp;
    temp = *a;
    *a = *b;
    *b = temp;
}
```

Swap Number

```
#include <stdio.h>
#include <stdlib.h>
int main()
{
    int i, j, temp;
    printf("Enter First Number: ");
    scanf("%d", &i);
    printf("\nEnter Second Number: ");
    scanf("%d", &j);
    temp=i;
    i=j;
    j=temp;
    printf("\nAfter swap using temp: %d, %d", i, j);
```

```

i=i+j;
j=i-j;
i=i-j;
printf("\nAfter swap without using temp: %d, %d", i, j);
return 0;
}

```

```

Array Max
#include<stdio.h>
main()
{
    char ary[22];
    int i,j,sum=0,max=0;
    printf("Enter range=");
    scanf("%d",&i);
    for(i=0;i<l;i++)
    {
        printf("%d Position of array",i+1);
        scanf("%d",&ary[i]);
    }
    for(j=0;j<l;j++)
    {
        if(ary[j]>max);
        max=ary[j];
    }
    printf("Max is %d\n",max);
}

```

ASCII Vowel / Consonant / Space

```

#include<stdio.h>
#include<conio.h>
#include<string.h>
main()
{
    char in[111];
    int ln,i,v=0,s=0,n=0,c=0;
    gets(in);
    ln=strlen(in);
    for(i=0;i<ln;i++)
    {
        if(in[i]=='a' || in[i]=='A' || in[i]=='e' || in[i]=='E' || in[i]=='i' || in[i]=='I' || in[i]=='o' || in[i]=='O'
           || in[i]=='u' || in[i]=='U')
            v++;
        else if (in[i]== ' ')
            s++;
        else if(in[i]>'A' && in[i]<'Z')
            n++;
    }
    printf("Vowels = %d\n",v);
    printf("Consonants = %d\n",s);
    printf("Space = %d\n",n);
}

```

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```
    c++;
    else if(in[i]>'0' && in[i]<'9')
        n++;
}
printf("Vowel %d, Space %d, Character %d, Number %d ,Total %d",v,s,c,n,ln);
}
```

Even - Odd - Summation

```
#include <stdio.h>
#include <stdlib.h>
int main()
{
    int in, i, sum_even=0, sum_odd=0, even[100], odd[100], e=0, o=0;
    printf("Enter Number: ");
    scanf("%d", &in);
    for(i=1; i<=in; i++){
        if(i%2 == 1){
            odd[o]=i;
            o++;
            sum_odd += i;
        }else{
            even[e]=i;
            e++;
            sum_even += i;
        }
    }
    printf("Even Number: ");
    for(i=0; i<o; i++){
        printf("%d ", even[i]);
    }
    printf("\nOdd Number: ");
    for(i=0; i<e; i++){
        printf("%d ", odd[i]);
    }
    printf("\nSum of Even Number: %d", sum_even);
    printf("\nSum of Odd Number: %d", sum_odd);
    return 0;
}
```

Gross Salary Calculation

```
#include<stdio.h>
main()
{
    int ta1,da1,gross_salary, basic, da, ta;
    printf("Enter basic salary : ");
    scanf("%d", &basic);
```

```

printf("Enter TA : ");
scanf("%d", &ta);
printf("Enter DA : ");
scanf("%d", &da);
da1 = (da * basic) / 100;
ta1 = (ta * basic) / 100;
gross_salary = basic + da1 + ta1;
printf("\nGross salary : %d", gross_salary);
}

```

String Operation

```

#include<stdio.h>
#include<string.h>

main()
{
    char in[100];
    int l;
    printf("Enter input: ");
    scanf("%s", &in);
    l = strlen(in);
    printf("Length of input is %d\n", l);
    strupr(in);
    printf("Upper case of input is %s\n", in);
    strlwr(in);
    printf("Lower case of input is %s\n", in);
    strrev(in);
    printf("Reverse case of input is %s\n", in);
}

```

Power Calculation

```

#include <stdio.h>
#include <stdlib.h>
int main()
{
    int base, pow, res=1, i;
    printf("Enter the Base: \n");
    scanf("%d", &base);
    printf("Enter the Pow: \n");
    scanf("%d", &pow);
    for(i=1; i<=pow; i++){
        res = res*base;
    }
    printf("%d", res);
    return 0;
}

```

Floyed Triangle

```
#include<stdio.h>
```

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```
main()
{
    int r,j,k;
    printf("Enter the number of row: ");
    scanf("%d",&r);
    for(j=0;j<=r;j++)
    {
        printf("\n");
        for(k=1;k<=j;k++)
        {
            printf("%d",k);
        }
    }
}
```

Find nPr & nCr

```
#include <stdio.h>
long factorial(int);
long find_ncr(int, int);
long find_npr(int, int);
int main()
```

```
{
    int n, r;
    long ncr, npr;
    printf("Enter the value of n and r\n");
    scanf("%d%d",&n,&r);
    ncr = find_ncr(n, r);
    npr = find_npr(n, r);
    printf("%dC%d = %ld\n", n, r, ncr);
    printf("%dP%d = %ld\n", n, r, npr);
    return 0;
}
```

```
long find_ncr(int n, int r) {
    long result;
    result = factorial(n)/(factorial(r)*factorial(n-r));
    return result;
}
```

```
long find_npr(int n, int r) {
    long result;
    result = factorial(n)/factorial(n-r);
    return result;
}
```

```
long factorial(int n) {
    int c;
```

```
long result = 1;
for (c = 1; c <= n; c++)
    result = result*c;
return result;

}
Pascal Triangle
#include <stdio.h>
long factorial(int);
int main()
{
    int i, n, c;
    printf("Enter the number of rows you wish to see in pascal triangle\n");
    scanf("%d",&n);
    for (i = 0; i < n; i++)
    {
        for (c = 0; c <= (n - i - 2); c++)
            printf(" ");
        for (c = 0 ; c <= i; c++)
            printf("%ld ",factorial(i)/(factorial(c)*factorial(i-c)));
        printf("\n");
    }
    return 0;
}
long factorial(int n)
{
    int c;
    long result = 1;
    for (c = 1; c <= n; c++)
        result = result*c;
    return result;
}
```