```c
//sample code of recursive functions

#include<stdio.h>

int factorial(int n){
        if(n==0 || n==1)
                return(1);
        return(n*factorial(n-1));//pass by value is required
}//end of factorial

int fibo(int n){
        if(n==1 || n==2)
                return(1);
        return(fibo(n-1)+fibo(n-2));
}

int combi(int n, int k){
        if(n==k || k==0)
                return(1);
        return(combi(n-1,k) + combi(n-1,k-1));
}

int main(){
        int n=6,k;

        //printf("%i! ==  %i\n",n,factorial(n));
        //printf("fibonacci(%i) ==  %i\n",n,fibo(n));
        for(n=0;n<=4;n++){
                for(k=0;k<=n;k++)
                        printf("%2i ",combi(n,k));
                printf("\n");
        }
}
```