```
// nCr=n!/r!(n-r)!
#include <iostream>
using namespace std;
int fact(int n)
   if (n == 0)
    {
       return 1;
   return fact(n - 1) * n;
int c(int n, int r)
{
   int v1, v2, v3;
   v1 = fact(n);
   v2 = fact(r);
   v3 = fact(n - r);
   return v1/(v2*v3);
}
// using resursion
// follow the pascal triangle
int crecurion(int n,int r){
   // r=0 and r=1 we have 1 if we follow the pascal triangle
   if (r==0||n==r)
    {
       return 1;
   }
   else{
       return crecurion(n-1,r-1)+crecurion(n-1,r);
   }
}
int main()
{
    cout<<c(5,2)<<endl;</pre>
   cout<<crecurion(5,2)<<endl;</pre>
   return 0;
}
                                                 - 1
                                              1
                                                         10 10
                                                                        5
                                                                             1
                                                   15
                                                          20
                                                                    15
                                                                         - 6
                                                                                 1
                                      1 7 21
                                                         35
                                                                35
                                                                        21
```