**Template:**

#include <iostream>

#include <cstdio>

#include <cmath>

#include <cstring>

#include <algorithm>

#include <vector>

#include <queue>

#include <stack>

#define ll long long

#define pb push\_back

#define Read(x) freopen(x,"r",stdin)

#define Write(x) freopen(x,"w",stdout)

using namespace std;

int main()

{

return 0;

}

* **Prime Numbers - The Sieve of Eratosthenes:**

#include <iostream>

using namespace std;

int main()

{

int i, j, n, counter = 0;

cout<<"Input n: ";

cin>>n;

int a[1000];

for(i=0; i<n; i++)

{

a[i] = 1;

}

for(i=2; i<n; i++)

{

if(a[i] != 0)

{

for(j=i\*2; j<n; j=j+i)

{

a[j] = 0;

}

}

}

cout<<"The Primes are: ";

for(i=2; i<n; i++)

{

if(a[i]==1)

{

cout<<i <<" ";

counter++;

}

}

cout<<endl;

cout<<"No of Primes: " <<counter <<endl;

return 0;

}

* **Reverse a integer**

long long ReverseInt(long long num)

{

long long remainder=0,reverse=0;

while(num!=0)

{

remainder=num%10;

num=num/10;

reverse=reverse\*10+remainder;

}

cout<<reverse;

}

* **Combination**

#include <iostream>

#include <cstdio>

#include <iomanip>

using namespace std;

long double Fact(long double num)

{

long double i, result=1;

for(i=num ;i>0; i--)

{

result = result \* i;

}

return result;

}

int main()

{

freopen("Input.txt","r",stdin);

long double n,m,c;

while(cin>>n>>m && n!=0 && m!=0)

{

c = Fact(n)/(Fact(n-m)\*Fact(m));

cout<<n <<" things taken " <<m <<" at a time is " << fixed << setprecision(0) <<c <<" exactly." <<endl;

}

return 0;

}

* **Maximum number of pizza pieces the given number of n cuts can produce:**

Equation**:** Max = ((n\*(n+1))/2)+1)

* **Right justified within the first 5 spaces:**

printf("**%5d** <Any Other Thing>\n",n);