#include<iostream>
using namespace std;
main()
{
    int i=1;
    int fact=1;
    int max;

    cout << "Enter a non-negative integer less than 20 ";
cin >> max;

    while(i<max)
    {
        i++;
        fact=fact*i;
    }
    cout << max << " factorial is equal to " << fact << endl;
}

ex1.cc

#include<iostream>
using namespace std;

int factorial (int value)
{
    int i=1;
    int fact=1;

    while(i<value)
    {
        i++;
        fact=fact*i;
    }
    return(fact);
}

main()
{
    int max, a;

    cout << "Enter a non-negative integer less than 20 ";
cin >> max;

    a=factorial(max);
cout << max << " factorial is equal to " << a << endl;

    if(max<19)
    {
        max=max+1;
        a=factorial(max);
cout << max << " factorial is equal to " << a << endl;
    }
}

ex2.cc

#include<iostream>
using namespace std;

int factorial (int value)
{
    int i=1;
    int fact=1;
while(i<value)
{
    i++;
    fact=fact*i;
}
return(fact);
}

main()
{
    const int MAX_FACTORIAL=20;
    int max, a;

cout << "Enter a non-negative integer less than " << MAX_FACTORIAL << endl;
cin >> max;

a=factorial(max);
cout << max << " factorial is equal to " << a << endl;

if(max<MAX_FACTORIAL-1)
{
    max=max+1;
    a=factorial(max);
cout << max << " factorial is equal to " << a << endl;
}

#include<iostream>
using namespace std;

// Finds the 2 roots of a polynomial.  "which" should be
// only 0 or 1.  Different values of which give you the
// different roots.  Doesn't work if imaginary roots.
double qroot (double a, double b, double c, int which)
{
    double inside, top, bottom;

    inside=b*b - 4*a*c;
    if(which==0)
       top=-b + sqrt(inside);
    else
       top=-b - sqrt(inside);
    bottom=2*a;

    return(top/bottom);
}

main()
{
    double n2coef, nlcoef, n0coef;
    double root1, root2;

cout << "Enter the n squared coefficient ";
cin >> n2coef;
cout << "Enter the n coefficient ";
cin >> nlcoef;
cout << "Enter the constant coefficient ";
cin >> n0coef;

root1=qroot(n2coef,nlcoef,n0coef,0);
root2=qroot(n2coef,nlcoef,n0coef,1);
cout << endl << "The roots are " << root1 << " and " << root2 << endl;
}