

```
#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;
    }
}
:::

```

ex3.cc

:::

```
#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, n1coef, n0coef;

```

```
    double root1, root2;

```

```
    cout << "Enter the n squared coefficient ";

```

```
    cin >> n2coef;

```

```
    cout << "Enter the n coefficient ";

```

```
    cin >> n1coef;

```

```
    cout << "Enter the constant coefficient ";

```

```
    cin >> n0coef;

```

```
    root1=qroot(n2coef,n1coef,n0coef,0);

```

```
    root2=qroot(n2coef,n1coef,n0coef,1);

```

```
    cout << endl << "The roots are " << root1 << " and " << root2 << endl;
}

```