Submitted by:

Burhan baig

Roll no:

460945

Class:

ME-15 (B)

Computer programming C++

```
#include <iostream>
using namespace std;

int main () {

        // TASK 1:

        double H,A;                                  // This step creates two variables
        H=1;
        double N=6;                                  // This step is used to find the factorial of 6
        A=N*(H+1)*(H+2)*(H+3)*(H+4);                 // This is the factorial formula
        cout<<"The factorial of 6 is: "<<A<<endl;    // This step displays the answer



        // TASK 2:

        double x1,x2,y1,y2;                          // This step creates 4 variables for the input
          // This step asks the user for the values of x1,x2
        cout<<"Enter two values for (x1,x2):"<<endl;
        cin>>x1>>x2;
          // This step asks the user for the values of y1,y2
        cout<<"Enter two values for (y1,y2):"<<endl;
        cin>>y1>>y2;
          // This step uses the formula for calculation of distance
        double distance = (x2-x1)*(x2-x1)+(y2-y1)*(y2-y1);
        cout<<"The distance between those points is:"<<distance<<endl;
```

```
// TASK 3:

 double
 length=0;
 cout<<"Enter your length in cm:"<<endl;
 cin>>length;
                // These 2 steps assign a variable and then apply the respective formulas
 double meter = length/100;
 double kilometer = length /100000;
                // For output in meters and kilometers
 cout<<"Your length in meters is:"<<meter<<endl;
 cout<<"Your length in kilomteres is:"<<kilometer<<endl;



 // TASK 4:

 double a,b;
 cout<<"Enter values for a and b"<<endl;
 cin>>a>>b;                                    // This step records the inputted values by the user
 double poly = (a*a)+2*(a*b)+(b*b);       // Required formula for the calculation
 cout<<"The polynomial's answer:"<<poly<<endl;

 return 0;
}
```