



National University of Science and  
technology  
(NUST)

**CS-114 - Fundamental of Programing**

**Home Task # 01**

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## TASK 1:

```
1 #include <iostream>
2 using namespace std;
3 int main()
4 {
5     int x1,y1,x2,y2,d;
6     cout<<"Enter x-coordinate of First point(x1):";
7     cin>>x1;
8     cout<<"Enter y-coordinate of First point(y1)";
9     cin>>y1;
10    cout<<"Enter x-coordinate of Second point(x2):";
11    cin>>x2;
12    cout<<"Enter y-coordinate of Second point(y2):";
13    cin>>y2;
14    d=(x2-x1)^2+(y2-y1)^2;
15    cout<<"d=(x2-x1)^2+(y2-y1)^2="<<d;
16    return 0;
```

```
C:\Users\ADMIN\OneDrive\Documents\L-1 H-1.exe
Enter x-coordinate of First point(x1):12
Enter y-coordinate of First point(y1):13
Enter x-coordinate of Second point(x2):14
Enter y-coordinate of Second point(y2):15
d=(x2-x1)^2+(y2-y1)^2=4
-----
Process exited after 7.887 seconds with return value 0
Press any key to continue . . .
```

## TASK 2:

```

1  #include <iostream>
2  using namespace std;
3  int main () {
4      int a = 100; //suposing a number 100
5      float L1;
6      cout<<"Length in Centimeters : "; // Inputting Length in Centimeters
7      cin>> L1;
8      cout<<"Length in Meters = "<<L1/a<< endl; // Declaring Length in Meters
9      cout<<"Length in Kilometers = "<< L1/100000<<endl; // Declaring Length in Kilometers
10     return 0;
11 }

```

```

Length in Centimeters : 100
Length in Meters = 1
Length in Kilometers = 0.001

-----
Process exited after 5.37 seconds with return value 0
Press any key to continue . . .

```

## TASK 3:

```

1  #include <iostream>
2  using namespace std;
3  int main(){
4      float a;
5      float b;
6      cout<<"Enter value of a : "; //Inputting value of a
7      cin>> a ;
8      cout<<"Enter value of b : "; // Inputting value of b
9      cin>> b ;
10     cout<<"a^2 + 2ab + b^2 = "<<(a * a) + (2 * a * b) + ( b * b)<<endl; // applying formula and getting desired result
11     return 0;
12 }
13

```

```

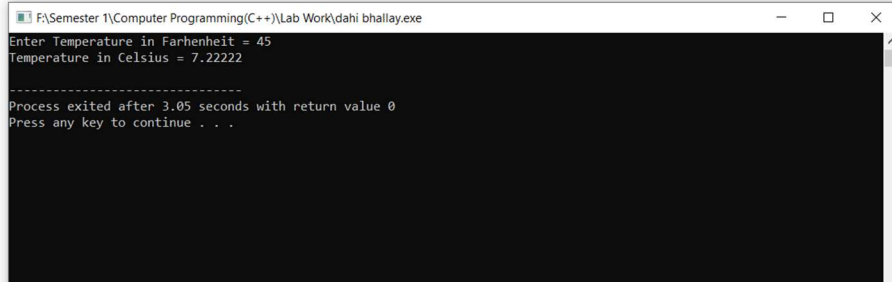
Enter value of a : 123
Enter value of b : 123
a^2 + 2ab + b^2 = 60516

-----
Process exited after 6.878 seconds with return value 0
Press any key to continue . . .

```

## TASK 4:

```
1 #include <iostream>
2 using namespace std;
3 int main(){
4     float temp;
5     cout<<"Enter Temperature in Farhenheit = "; //Inputting temperature in fahrenheit
6     cin>> temp ;
7     cout<<"Temperature in Celsius = "<< 0.555555556 * (temp - 32) <<endl; // Applying formula and declaring result
8     return 0;
9 }
```



The screenshot shows a Windows command prompt window titled "F:\Semester 1\Computer Programming(C++)\Lab Work\dahi bhallay.exe". The output of the program is as follows:

```
Enter Temperature in Farhenheit = 45
Temperature in Celsius = 7.22222

-----
Process exited after 3.05 seconds with return value 0
Press any key to continue . . .
```

