

# **Computer System and Programming**

by

**SHERAZ KHAN (475811)**

**Sec: A**



**Subject:** Lab work

**Submitted to:** Muhammad Afghan

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**DEPARTMENT OF MECHANICAL ENGINEERING  
NATIONAL UNIVERSITY OF SCIENCE  
AND TECHNOLOGY**

## Task 1

### Distance between two points

Task 1.cpp

```
1  #include<iostream>
2  using namespace std;
3  int main()
4  {
5      //declering variables
6      float x1;
7      float y1;
8      float x2;
9      float y2;
10     float d;
11     //entering vlues of variables
12     cout<<"kindly enter value of x1: ";
13     cin>>x1;
14     cout<<"kindly enter value of y1: ";
15     cin>>y1;
16     cout<<"kindly enter value of x2: ";
17     cin>>x2;
18     cout<<"kindly enter value of y2: ";
19     cin>>y2;
20     //calculating distance
21     d=(x2-x1)*(x2-x1) + (y2-y1)*(y2-y1);
22     cout<<"your required distance is: "<< d << endl;
23     return 0;
24 }
```

```
kindly enter value of x1: 8
kindly enter value of y1: 9
kindly enter value of x2: 5
kindly enter value of y2: 7
your required distance is: 13
```

```
-----
Process exited after 17.3 seconds with return value 0
Press any key to continue . . .
```

## Task 2

### Conversion of centimeter in to meter and kilometer

[\*] Task 2.cpp

```
1  #include<iostream>
2  using namespace std;
3  int main()
4  {
5      //deleting variables
6      float x;
7      float y;
8      float z;
9      //values of variables
10     cout<<"kindly enter value in centimeter: ";
11     cin>>x;
12     //conversion in meter
13     y=x/100;
14     cout<<"Sir reuired value in meter is: "<<y<< endl;
15     //conversion in kilometer
16     z=x/100000;
17     cout<<"Sir required value in kilometer is: " <<z<<endl;
18     return 0;
19 }
20
```

```
kindly enter value in centimeter: 453000
Sir reuired value in meter is: 4530
Sir required value in kilometer is: 4.53
```

```
-----
Process exited after 5.311 seconds with return value 0
Press any key to continue . . .
```

### Task 3

#### Value of ( $a^2 + 2ab + b^2$ )

[\*] Task 3.cpp

```
1  #include<iostream>
2  using namespace std;
3  int main()
4  {
5      //declering variables
6      float a;
7      float b;
8      float r;
9      //value of a
10     cout<<"kindly enter the value of a: ";
11     cin>>a;
12     //value of b
13     cout<<"kindly enter thevalue of b : ";
14     cin>>b;
15     r= a*a + 2*a*b + b*b ;
16     cout<<"sir your required value is: "<<r<< endl;
17     return 0;
18 }
19
```

```
kindly enter the value of a: 6
kindly enter thevalue of b : 3
sir your required value is: 81
```

-----

Process exited after 5.403 seconds with return value 0

Press any key to continue . . .

## Task 4

### Fahrenheit into Celsius

[\*] Task 4.cpp

```
1  #include<iostream>
2  using namespace std;
3  int main()
4  {
5      //declering variables
6      float F;
7      float C;
8      cout<<"kindly enter the value in Fahrenhiet : ";
9      cin>>F;
10     //temperature in Celcius
11     C=(F-32)*5/9;
12     cout<<"your value in Celcius is: "<<C<< endl;
13     return 0;
14 }
```

```
kindly enter the value in Fahrenhiet : 465
your value in Celcius is: 240.556
```

```
-----
Process exited after 6.024 seconds with return value 0
Press any key to continue . . .
```