

# Programming Lab Assignment 1

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## Home Task # 1

```
#include<iostream>

using namespace std;

int main()
{
    int x_1, y_1, x_2, y_2, D;

    //Obtaining the coordinates of Two Points

    //Point 1

    cout<<"Enter the x and y coordinates of Point 1 \n";
    cout<<"x = ";
    cin>>x_1;
    cout<<"y = ";
    cin>>y_1;
    cout<<endl;
```

```
//Point 2
```

```
cout<<"Enter the x and y coordinates of Point 2 \n";
```

```
cout<<"x = ";
```

```
cin>>x_2;
```

```
cout<<"y = ";
```

```
cin>>y_2;
```

```
cout<<endl;
```

```
//Calculating Distance
```

```
D=((x_2-x_1)*(x_2-x_1))+((y_2-y_1)*(y_2-y_1));
```

```
cout<<"Distance = "<<D;
```

```
cout<<endl;
```

```
}
```

## Home Task # 2

```
#include<iostream>

using namespace std;

int main()

{
    float c_m,m,k_m;

    //Obtaining the value for length

    cout<<"Enter the length in centimetres = ";
    cin>>c_m;
    cout<<endl;

    //Conversion into metres

    m = c_m/100;
```

```
cout<<"Length in metres = "<<m;
```

```
cout<<endl;
```

```
//Conversion into kilometres
```

```
k_m = m/1000;
```

```
cout<<"Length in kilometres = "<<k_m;
```

```
cout<<endl;
```

```
}
```

## Home Task # 3

```
#include<iostream>
```

```
using namespace std;
```

```
int main()
```

```
{
```

```
    float a,b,P;
```

```
    //Obtaining the values for a and b
```

```
    cout<<"Enter the value of a = ";
```

```
    cin>>a;
```

```
    cout<<endl;
```

```
    cout<<"Enter the value of b = ";
```

```
    cin>>b;
```

```
    cout<<endl;
```

```
//Calculation of the Polynomial
```

```
P = a*a + 2*a*b + b*b;
```

```
cout<<"The value of Polynomial = "<<P;
```

```
cout<<endl;
```

```
}
```

## Home Task # 4

```
#include<iostream>

using namespace std;

int main()
{
    float f,c;

    //Obtaining the temperature value

    cout<<"Enter the Temperature in Fahrenheit = ";
    cin>>f;
    cout<<endl;

    //Conversion from Fahrenheit into Celsius

    c = (f-32) * 5/9;

    cout<<"The Temperature in Celsius = "<<c;

}
```