

## Programming Home task#1 C++ Coding

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```
#include<iostream>

#include<cmath>

//I added library header cmath to define the square root sqrt() function

using namespace std;

int main()

{

double x1, x2, y1, y2, d;

cout<<"(1st task)The 1st pair of coordinates are (x1, y1)"<<endl;

cin>>x1;

cin>>y1;


cout<<"The 2nd pair of coordinates are (x2, y2)"<<endl;

cin>>x2;

cin>>y2;


d = sqrt((x2-x1)*(x2-x1) + (y2-y1)*(y2-y1));

cout<<"the distance between two points = "<<d<<endl;


//end of task1


double p;


cout<<"(2nd task)The length in centimeter = "<<endl;

cin>>p;


p/100;
```

```
cout<<"The length in meter = "<<p/100<<endl;
```

```
p/(100*1000);
```

```
cout<<"The length in kilometre = "<<p/(100*1000)<<endl;
```

```
//end of task2
```

```
double a, b;
```

```
cout<<"(3rd task)The value of a and b respectively is:- "<<endl;
```

```
cin>>a;
```

```
cin>>b;
```

```
a*a+b*b+2*a*b;
```

```
cout<<"a*a+b*b+2*a*b = "<<a*a+b*b+2*a*b<<endl;
```

```
//end of task3
```

```
double C, F;
```

```
cout<<"(4th task)The Temperature in Fahrenheit is:- "<<endl;
```

```
cin>>F;
```

```
C=(F-32)*5/9;
```

```
cout<<"The Temperature in Celsius is :- "<<C<<endl;
```

```
//end of task 4
```

```
return 0;
```

```
}
```

OUTPUT: -

```
C:\Users\tahse\Desktop\Hom X + v
(1t task)The 1st pair of coordinates are (x1, y1)
5
1
The 2nd pair of coordinates are (x2, y2)
1
-6
the distance between two points = 8.06226
(2nd task)The length in centimeter =
100000
The length in meter = 1000
The length in kilometre = 1
(3rd task)The value of a and b respectively is:-
5
4
a*a+b*b+2*a*b = 81
(4th task)The Temperature in Fahrenheit is:-
100
The Temperature in Celsius is :- 37.7778

-----
Process exited after 28.34 seconds with return value 0
Press any key to continue . . . |
```

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