

CS-114 - Fundamental of Programing

Lab Manual # 01

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```
#include <iostream>

using namespace std;

int main() {
    cout<<"HOME TASK 1"<<endl;
    int a,ans;
    a = 6;
    ans=a*(a-1)*(a-2)*(a-3)*(a-4)*(a-5);
    cout<<"Factorial of 6="<<ans<<endl;
    return 0;
}
```

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| HOME TASK 1 |
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```
#include<iostream>
#include<math.h>
using namespace std;
int main() {
    cout<<"HOME TASK 2"<<endl;
    int X1,X2,Y1,Y2;
    float d;
    cout<<"Enter X1:";
    cin>>X1;
    cout<<"Enter Y1:";
    cin>>Y1;
    cout<<"Enter X2:";
    cin>>X2;
    cout<<"Enter Y2:";
    cin>>Y2;
    d=sqrt(pow((X2-X1),2)+pow((Y2-Y1),2));
    cout<<"Distance between 2 points = "<<d<<endl;
    return 0;
}
```

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| HOME TASK 2 |
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```

#include<iostream>

using namespace std;

int main() {
    cout<<"HOME TASK 3"<<endl;

    float a,b,c;

    cout<<"Enter length in centimeters:"<<endl;
    cin>>a;
    b = a/100;
    c = b/1000;
    cout<<"Length in meters="<<b<<endl;
    cout<<"Length in kilometers="<<c<<endl;
    return 0;
}

```

HOME TASK 3

```

#include<iostream>

#include<math.h>

using namespace std;

int main () {
    cout<<"HOME TASK 4";

    int a,b,c;

    cout<<"Enter value of a:";
    cin>>a;
    cout<<"Enter value of b:";
    cin>>b;
    c=(pow(a,2))+(2*a*b)+(pow(b,2)) ;
    cout<<"Answer="<<c<<endl;
    return 0;
}

```

HOME TASK 4