

IIT Guwahati
CS 201
Assignment-4
Chetan Anand
11010117

Listing 1: Test

```
#include<cmath>
#include<iostream>

using namespace std;
double func(double x)
{
    return 3*x*x-exp(x);
}
double diff(double x)
{
    return 6*x-exp(x);
}
int main()
{
    double x0,x1;
    cout<<"the given x0 is : ";
    cin>>x0;

    while(1)
    {
        x1=x0-(func(x0)/diff(x0));
        if(abs(x1-x0) < 0.00001)
        {
            break;
        }
        x0=x1;
    }
    cout<<x1;
    return 0;
}
```