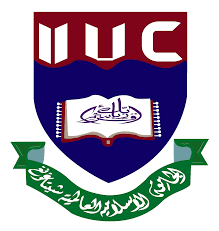
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**Department of Computer Science and Engineering**

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**Course Code : CSE- 4746**

**Course Title : Numerical Methods Lab**

**Submitted By:**

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**Semester : 7TH**

**Matric ID: C201016**

**Section: 7AM**

**Date of Submission: 8 Aug 2023.**

**Submitted To:**

**Prof. Mohammed Shamsul Alam**

**Professor**

**Dept. Of CSE, IIUC**

* Uva 498

Code:

*#include* <iostream>

*#include* <sstream>

*using* *namespace* std;

int main() {

    string line;

*while* (getline(cin, line)) {

        istringstream coeffStream(line);

        int coefficients[1000] *=* {0};

        int degree *=* 0;

        int coeff;

*while* (coeffStream *>>* coeff) {

            coefficients[degree] *=* coeff;

            degree*++*;

        }

        getline(cin, line);

        istringstream valueStream(line);

        int x;

        bool first *=* true;

*while* (valueStream *>>* x) {

            long long result *=* coefficients[0];

*for* (int i *=* 1; i *<* degree; i*++*) {

                result *=* result *\** x *+* coefficients[i];

            }

*if* (*!*first) {

                cout *<<* " ";

            }

            first *=* false;

            cout *<<* result;

        }

        cout *<<* endl;

    }

*return* 0;

}

* Uva 10341

Source

*#include* <bits/stdc++.h>

*using* *namespace* std;

int p, q, r, s, t, u;

double evaluate(double x) {

*return* p *\** exp(*-*x) *+* q *\** sin(x) *+* r *\** cos(x) *+* s *\** tan(x) *+* t *\** x *\** x *+* u;

}

double binarySearch(double low, double high) {

    const double EPSILON *=* 1*e-*9;

*while* (low *+* EPSILON *<* high) {

        double mid *=* (low *+* high) */* 2;

        double result *=* evaluate(mid);

*if* (result *<* 0) {

            high *=* mid;

        } *else* {

            low *=* mid;

        }

    }

*return* (low *+* high) */* 2;

}

int main() {

*while* (cin *>>* p *>>* q *>>* r *>>* s *>>* t *>>* u) {

*if* (evaluate(0) *\** evaluate(1) *>* 0) {

            cout *<<* "No solution\n";

        } *else* {

            double solution *=* binarySearch(0, 1);

            printf("%.4f\n", solution);

        }

    }

*return* 0;

}