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#include<stdio.h>
#include<stdlib.h>

float func(int* coeff, int n, float x) {
    float x_pow = 1.0;
    float ans = 0.0;
    for(int i = 0; i <= n; i++){
        ans += x_pow * coeff[i];
        x_pow *= x;
    }
    return ans;
}

void bisection(int* coeff, int n, float a, float b, float epsilon){
    float f_a = func(coeff, n, a);
    float f_b = func(coeff, n, b);
    if(f_a * f_b > 0){
        printf("INVALID INPUT");
        return;
    }
    if(f_a == 0){
        printf("%.2f", a);
        return;
    }
    if(f_b == 0){
        printf("%.2f", b);
        return;
    }

    float c = a;
    while((b-a) >= epsilon){
        c = (a+b)/2;
        float f_c = func(coeff, n, c);
        if(f_c == 0.0){ // Not a nice thing to do in general
            printf("%.2f", c);
            return;
        }
        if(f_c * f_a < 0)
            b = c;
        else
            a = c;
    }
    printf("%.2f", (a+b)/2);
}

int main() {
    int N;
    float a, b, epsilon;
    scanf("%d %f %f %f", &N, &a, &b, &epsilon);
    int coeff[N+1];
    for (int i = 0; i <= N; i++)
        scanf("%d", &coeff[i]);

    bisection(coeff, N, a, b, epsilon);
    return 0;
}
```