#include <iostream>

#include <cmath>

#include <iomanip>

using namespace std;

float f(float x)

{

  float y;

  y = 2 \* pow(x, 2) + 3 \* x - 4;

  return y;

}

int main()

{

  float a, b, N, h, r;

  float c\_akar[500], n\_fungsi[500];

  cout << "Input batas atas : ";

  cin >> a;

  cout << "Input batas bawah : ";

  cin >> b;

  cout << "Input Jumlah iterasi : ";

  cin >> N;

  h = (a - b) / N;

  for (int i = 0; i < N; i++)

  {

    c\_akar[i] = b + i \* h;

    n\_fungsi[i] = f(c\_akar[i]);

    cout << c\_akar[i] << "\t" << n\_fungsi[i] << endl;

  }

  for (int j = 0; j < N - 1; j++)

  {

    if (n\_fungsi[j] == 0)

    {

      cout << "Akar: " << c\_akar[j] << "\t"

           << "Nilai Fungsi: " << n\_fungsi[j] << "Eror: " << abs(n\_fungsi[j]) << fixed;

    }

    else

    {

      r = n\_fungsi[j] \* n\_fungsi[j + 1];

      if (r < 0)

      {

        if (abs(n\_fungsi[j] < abs(n\_fungsi[j + 1])))

        {

          cout << "Akar: " << c\_akar[j] << "\t"

               << "Nilai Fungsi: " << n\_fungsi[j] << "Eror: " << abs(n\_fungsi[j]) << fixed;

        }

        else

        {

          cout << "Akar: " << c\_akar[j + 1] << "\t"

               << "Nilai Fungsi: " << n\_fungsi[j + 1] << "Eror: " << abs(n\_fungsi[j + 1]) << fixed;

        }

      }

    }

  }

  return 0;

}



