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// Answer on Question#37472 - Programming - C++

#include<iostream>
#include<math.h>
#include<conio.h>

using namespace std;

int main() {
    float x[5];

    int numbersAmount = 5; // begining amount of numbers

    for (int i = 0; i < numbersAmount; i++) { //input numbers
        cout << "Enter the " << i+1 << " number : ";
        cin >> x[i];
        cout << endl;
    }

    float average;
    average = (x[0] + x[1] + x[2] + x[3] + x[4]) / numbersAmount; // find average

    float xx[5];
    float sum = 0;

    for (int i = 0; i < numbersAmount; i++) { //calculate the difference of each data point
        xx[i] = x[i] - average;
        xx[i] = pow(xx[i],2);
        sum += xx[i];
    }

    float standardDiviation;

    standardDiviation = sqrt(sum / (numbersAmount - 1));

    cout << "Standard Deviation of your 5 numbers is : " << standardDiviation << endl;
    getch();
}

return 0;
}

```