My Project

Chapter 1

File Index

1.1 File List

Here is a list of all documented files with brief descriptions:

Chapter 2

File Documentation

2.1 hw_broken.cc File Reference

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

Functions

- double deviation (int ∗a, int n)

2.1.1 Function Documentation

2.1.1.1 deviation()

```
double deviation (
            int * a,
            int n )
```

/brief This funciton calculates the standard deviation for a preset array of integers /param a : This is the array of values /param n : This is the variables for the numerical values in the array /return Returns the Standard Deviation

Definition at line 13 of file hw_broken.cc.

```
14 {   //initializes the sum to be 0
15     double sum=0;
16     //for loop that adds up all of the data in the array
17     for(size_t i = 0; i <= n-1; i++)
18     {
19         sum += a[i];
20     }
21     //calculates the mean(average)
22     double mean = sum /= n;
23     //initializes the standard deviation to be 0
24     double stddev = 0;
25     //calculates the bulk of the standard deviation
26     for(size_t i = 0; i <= n - 1; i++)
27     {
28         stddev += (a[i] - mean) * (a[i] - mean);
29     }
30     //statement to see if there is an error and the standard deviation is 0
31     if( stddev == 0)
32         std::cout << "Sigma is zero." << std::endl;
33     //sets value to return the final standard deviation
34     double final = sqrt(stddev/n);
35     //returns the answer to the calculation
36     return final;
37 }
```