HW3 - Standard Deviation

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Chapter 1

Assignment-3

I have included the standard deviation information in both a standalone .tex file and the doxygen .tex file.

2 Assignment-3

Chapter 2

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Here is a list of all documented files with brief descriptions:	
hw_fixed.cc	5

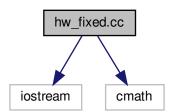
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Chapter 3

File Documentation

3.1 hw_fixed.cc File Reference

#include <iostream>
#include <cmath>
Include dependency graph for hw_fixed.cc:



Functions

• double deviation (int *a, int n)

Calculate the standard deviation of a set of numbers.

3.1.1 Function Documentation

File Documentation

3.1.1.1 deviation()

```
double deviation ( \inf \ * \ a \text{,} \inf \ n \ )
```

Calculate the standard deviation of a set of numbers.

The formula that this function uses to calculate standard deviation is:

$$\sigma = \sqrt{\sum_{i=1}^{n} \frac{(\bar{x} - x_i)^2}{n}}$$

Where n is the size of the set of numbers, \bar{x} is the average of the numbers in the set, and x_i denotes the ith element in the set.

Parameters

а	- The array of numbers to calculate the standard deviation of
n	- The size of the set of numbers

Returns

A double precision number of the standard deviation

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```