HW3 - Standard Deviation

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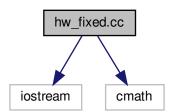
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Chapter 3

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.

Uses the formula:

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

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 | l |

Returns

A double precision number of the standard deviation

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