256 Problem of the Week Week 1
Professor Duke

A Freshman's Dilemma

Freshman at VCU often face the overwhelming dilemma of ordering college textbooks for the first time. Marked up textbook prices, coupled with aggressive marketing may often leave a student drastically overpaying for a text they could have gotten for a lower price. Thankfully, the strong programmers in CMSC 256 have come to the rescue. You will write a Java program that will take in a list of textbook prices and return the difference between the largest and smallest price to show VCU freshman just how much they could be saving.

Input

The input will consist of an integer $2 \leq n \leq 1000$ followed by a list of floating point numbers $d_1, d_2, \cdots, d_n$ representing prices gathered from different vendors for the same textbook. No textbook will be appraised higher than $1000 by a vendor.

Output

The output will consist of a single floating point number, rounded to 2 decimal places, representing the difference between the largest and smallest price quoted by a textbook vendor.

Sample Input

```
5
143.43
29.98
75.84
99.49
59.99
```

Sample Output

```
113.45
```