Athena on Zanzibar Island

Time limit: 0.9s **Memory limit:** 256M
Java 8: 1.5s

In a far far away land called the island of Zanzibar, Athena the Software Engineer is typing away on another problem. Earlier that day, her boss gave her N pizzas with tanginess values of $a_1, a_2, \ldots, a_N$, tasking her with finding two pizzas i and j such that $i \neq j$ and $|a_i + a_j|$ is minimized. But lately, Athena has been very swamped with ~~physics lab work from the University of Waterloo~~ writing boring business reports, and doesn't have time to complete the job. Can you help her finish it before the deadline?

Constraints

$2 \leq N \leq 10^6$

$-10^9 \leq a_i \leq 10^9$

Subtask 1 [10%]

$2 \leq N \leq 100$

Subtask 2 [90%]

No additional constraints.

Input Specification

The first line contains the integer N.

The second line contains the space-separated integers $a_1, a_2, \ldots, a_N$.

Output Specification

Let A be the minimum possible value of $|a_i + a_j|$ with the given input.

The first line should contain A.

The second line should contain the space separated integers i, j such that $|a_i + a_j| = A$. If there are multiple possible answers, output the one that minimizes $10^7 \times i + j$.

Sample Input

```
10
-5 8 2 1 7 -3 -5 0 5 5
```

Sample Output

```
0
1 9
```

Sample Explanation

Taking the 1^{st} and 9^{th} pizzas results in the best possible sum of 0.