



THE NECKLACE I



Masha has been on a travelling spree and as souvenirs she bought beads of different sizes. The **bigger** the beads, the **heavier** they are. Her plan is to create a beautiful necklace so that every time she looks at it, she can remember about the nice moments she had with the marvelous people she met all over the world.

She uses the following rules to proceed:

- The **center bead** must be the **heaviest** one.
- As we move towards the ends, the beads become **strictly smaller** and hence **lighter than the previous one**.
- The necklace should be **exactly symmetrical**, with the biggest bead at the center.

With the beads she has in her possession, what is the **longest** and **heaviest** necklace that she can make?

Input

Your program should read from a text file. The first line will have the value N , representing the number of beads Masha has in her possession. Masha can have as many as **1 000 000 beads**.

The following lines will consist of a positive integer, W , denoting the weight of each of the beads. W can be as much as **10000 mg**.

Output

The output should be 2 lines. The first line contains the number of beads used to make the necklace. The second line contains the weight of the necklace. The format is specified in the sample output below.

Sample Input	Sample Output	Explanation
10 1 100 5 2 3 2 1 5 100 100	Number of beads used = 7 Weight of necklace = 116 mg	From the sample input, $N=10$ and the following 10 lines contain beads of varying weight. We had chosen 7 of the beads to make a necklace weighing 116 mg.