Problem G. At Most 3 (Judge ver.)

Time limit 2000 ms **Mem limit** 1048576 kB

Problem Statement

There are N weights called Weight 1, Weight 2, . . ., Weight N. Weight i has a mass of A_i . Let us say a positive integer n is a **good integer** if the following condition is satisfied:

• We can choose at most 3 different weights so that they have a total mass of n.

How many positive integers less than or equal to W are good integers?

Constraints

- $1 \le N \le 300$
- $1 \le W \le 10^6$
- $1 \le A_i \le 10^6$
- All values in input are integers.

Input

Input is given from Standard Input in the following format:

Output

Print the answer.

Sample 1

Input	Output
2 10 1 3	3

If we choose only Weight 1, it has a total mass of 1, so 1 is a good integer.

If we choose only Weight 2, it has a total mass of 3, so 3 is a good integer.

If we choose Weights 1 and 2, they have a total mass of 4, so 4 is a good integer.

No other integer is a good integer. Also, all of 1, 3, and 4 are integers less than or equal to W. Therefore, the answer is 3.

Sample 2

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Input	Output
2 1 2 3	0

There are no good integers less than or equal to ${\cal W}.$

Sample 3

Input	Output
4 12 3 3 3 3	3

There are 3 good integers: 3, 6, and 9.

For example, if we choose Weights 1, 2, and 3, they have a total mass of 9, so 9 is a good integer. Note that 12 is **not** a good integer.

Sample 4

Input	Output
7 251 202 20 5 1 4 2 100	48