

Sheldon Cooper and his beverage paradigm

Problem Description

Sheldon Cooper, Leonard Hofstadter and Penny decide to go for drinks at Cheese cake factory. Sheldon proposes to make a game out of this. Sheldon proposes as follows,

- To decide the amount of beverage they plan to consume, say X .
- Then order for a random number of different drinks, say $\{A, B, C, D, E, F\}$ of quantities $\{a, b, c, d, e, f\}$ respectively.
- If quantity of any three drinks add up to X then we'll have it else we'll return the order.
E.g. If $a + d + f = X$ then True else False

You are given

1. Number of bottles N corresponding to different beverages and hence their sizes
2. Next N lines, contain a positive integer corresponding to the size of the beverage
3. Last line consists of an integer value, denoted by X above

Your task is to help find out if there can be any combination of three beverage sizes that can sum up to the quantity they intend to consume. If such a combination is possible print True else False

Input Format:

1. First line contains number of bottles ordered denoted by N
2. Next N lines, contains a positive integer A_i , the size of the i^{th} bottle
3. Last line contains the quantity they intend to consume denoted by X in text above

Output Format:

True, if combination is possible

False, if combination is not possible

Constraints:

$N \geq 3$

$A_i > 0$

$1 \leq i \leq N$

$X > 0$

Sample Input and Output

Sr No.	Input	Output
1	6 1 4 45 6 10 8 22	True
2	4 1 3 12 4 14	False

Explanation

Sample 1:

The sum of 2nd, 5th and 6th beverage size is equal to 22. So, the output will be True.

Sample 2:

Since no combination of given beverage sizes sum up to X i.e. 14, the output will be False.