

1. Dividing apples (jaga)

1 sec / 3 sec

20 points

N baskets are lined up, numbered $1 \dots N$ from left to right. The basket number i contains K_i apples. John and Mary want to draw a line between two baskets, and then John would get all the baskets to the left of the line and Mary all the baskets to the right of the line. Help them draw the line to divide the apples as equally as possible!

Input. The first line of the file `jagasis.txt` contains N , the number of baskets ($2 \leq N \leq 1\,000\,000$). Each of the following N lines contains an integer K_i : the number of apples in basket number i ($1 \leq i \leq N$, $0 \leq K_i \leq 10\,000$).

Output. The only line of the file `jagaval.txt` should contain a single integer: the number of the basket to the right of which the line should be drawn, so that the absolute value of the difference between the number of apples John gets, and the number of apples Mary gets, would be as small as possible. If there are multiple possible answers, output any one of them.

Example.	<code>jagasis.txt</code>	<code>jagaval.txt</code>
	7	4
	4	
	2	
	10	
	2	
	9	
	3	
	7	

When the line is drawn between the fourth and the fifth basket, John gets $4 + 2 + 10 + 2 = 18$ apples and Mary gets $9 + 3 + 7 = 19$ apples. The difference between these numbers is 1, which is the smallest possible.

Grading. In tests worth a total of 10 points, $N \leq 1\,000$.