



Corporate

Singapore's private sector is booming, and a big reason for this is the excellent incentives and bonuses given to employees when companies are doing well.

Mr. Lee is the owner of one of these companies. The economy is booming, and for the next n accounting periods he has projected, in dollars, the amount of profit his company will net after accounting for expenses. In the i^{th} of these accounting periods, he projects that his company will net p_i dollars in profit.

Mr. Lee knows that a happy workforce is a productive workforce, and so he wants to give a bonus to his m employees. For ease of accounting, he decides that the bonus will come from a range of *consecutive* accounting periods.

As the owner, however, he is entitled to a cut of the profits as well. He decides that in the chosen range of accounting periods, he will take the profits from the *most profitable* period for himself, dividing the rest evenly among his employees. If there are multiple most profitable periods he takes the profits from only one of them.

Mr. Lee's accounting system is behind the times and only supports integers, which adds another restriction. When he chooses the range of consecutive accounting periods, after he takes his cut, every employee should receive a positive integer number of dollars.

How many different ranges satisfy his criteria?

Input format

The first line contains two integers, n and m , the number of accounting periods and the number of employees in Mr. Lee's company, excluding Mr. Lee, respectively.

The next line contains n integers p_1, p_2, \dots, p_n , denoting, in dollars, the projected profits for each accounting period.

Output format

Output a single integer on a line by itself, the number of ranges satisfying Mr. Lee's criteria.

Subtasks

In all subtasks $1 \leq m \leq 10^6$ and $1 \leq p_i \leq 10^9$.

Subtask	Points	n
1	17	$1 \leq n \leq 300$
2	7	$1 \leq n \leq 3\,000$
3	76	$1 \leq n \leq 300\,000$

Example

Consider the following input:

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5 3
300 100 200 400 200
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The correct output is:

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3
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In this case, there are $n = 5$ accounting periods and $m = 3$ employees in Mr. Lee's company, not including himself.

The projected profits in these accounting periods are $p_1 = 300$ dollars, $p_2 = 100$ dollars, $p_3 = 200$ dollars, $p_4 = 400$ dollars and $p_5 = 200$ dollars.

The valid ranges are:

1. The 1st to 3rd accounting periods; here Mr. Lee takes $p_1 = 300$ dollars and divides the remaining $p_2 + p_3 = 300$ dollars among his 3 employees, with each receiving 100 dollars.
2. The 1st to 4th accounting periods; here Mr. Lee takes $p_4 = 400$ dollars and divides the remaining $p_1 + p_2 + p_3 = 600$ dollars among his 3 employees, with each receiving 200 dollars.
3. The 2nd to 4th accounting periods; here Mr. Lee takes $p_4 = 400$ dollars and divides the remaining $p_2 + p_3 = 300$ dollars among his 3 employees, with each receiving 100 dollars.