Task: TOM
Book of poetry

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XXV OI, Stage II, Day two. Source file `tom.*` Available memory: 128 MB. *15.02.2018*

A well regarded poet Byteasar wants to have a book of his n most recent poems published. Each page fits up to s lines of text. The poems are printed one after another, with no empty lines between them. Each poem consists of a title, which occupies one line, followed by the actual content, which takes a_i lines for the i-th poem.

For sake of aesthetics, a title of a poem cannot be printed in the last line of a page, so if a preceding poem ends in the last but one line of a page, the last line has to remain empty. We call such line an empty interior line; note that any empty lines following the last poem are *not* interior lines. Byteasar's poems may appear in any order, each resulting in some number of empty interior lines. To economize on printing, Byteasar would like to find the order that minimizes this number.

Input

In the first line of the standard input, there are two integers n and s ($n \geq 1$, $2 \leq s \leq 1\,000\,000$), separated by a single space, which specify the number of poems and the number of lines per page respectively. The poems are numbered from 1 to n.

The second line contains a sequence of n integers $a_1, a_2, \ldots, a_n$ ($1 \leq a_i \leq 1\,000\,000$), separated by single spaces, which specify the number of lines of successive poems' contents (i.e., excluding the title line).

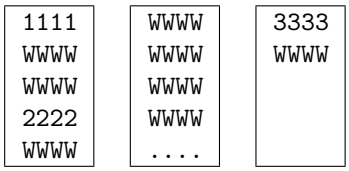
Output

Two lines should be printed to the standard output. The first one should contain a single integer k – the minimum number of empty interior lines. The second line should contain a sequence of n distinct integers from the interval $[1, n]$, giving the order of poems that attains the k empty interior lines. The numbers in the sequence should be separated by single spaces. You program may print any correct solution if there more than one exists.

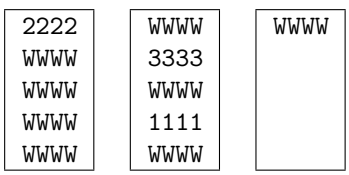
Example

For the following input data:	the correct answer is:
`3 5` `2 5 1`	`0` `2 3 1`

Explanation for the example: Printing poems in the input order yields a single empty interior line:



The optimum printing order yields no empty interior lines:



Sample grading tests:

`1ocen`: $n = 5$, $s = 2$;

`2ocen`: $n = 1000$, $s = 100$, $a_i = 98$; every order results in 999 empty interior lines;

`3ocen`: $n = 1000$, $s = 1003$, $a_i = i$; poems no. i and $n + 1 - i$ together fill a page completely; 0 empty interior lines.

Grading

The set of tests consists of the following subsets. Within each subset, there may be several unit tests.

Subset	Property	Score
1	$n \leq 10$	10
2	$n \leq 500\,000$, all a_i pairwise different, $a_i \leq s$	20
3	$n \leq 1000$	25
4	$n \leq 500\,000$	45