

Problem G

Old MacDonald Had a Goat

Time Limit: 1 second

Old MacDonald had a farm. As you might know from a very famous song of him, he had been raising many types of cattle such as chicken, cows, horses, ducks, etc. This time, he wants to expand his business, so he imports a new species which is the goat.



Now, MacDonald needs to build a stable for his goats. He has n fences and he loves to build the stable in a rectangle shape. In order to save space to raise other new species in the future, he limits the area of the goat's stable to be less than an positive integer S .

There are n fences, the i^{th} fence has a length of l_i . Given an integer S and a sequence of integers l_1, l_2, \dots, l_n . Your task is to indicate 4 positions (i, j, k, t) that these fences will form a rectangle, whose area is maximum and does not exceed S .

Input

The first line contains two integers n and S ($4 \leq n \leq 10^5$; $1 \leq S \leq 10^{18}$).

The second line contains n integers l_1, l_2, \dots, l_n ($1 \leq l_i \leq 10^{18}$), the lengths of n fences.

Output

Display 4 integers i, j, k, t ($1 \leq i < j < k < t \leq n$) – the positions of the selected fences. If the answer does not exist, output -1 . If there are multiple solutions, output the tuple (i, j, k, t) which has the smallest alphabetical order.

Sample Input

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12 19
3 4 2 6 5 9 3 9 5 4 6 2
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Sample Output

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1 4 7 11
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