There are n students in a class numbered from 0 to n - 1. The teacher will give each student a problem starting with the student number 0, then the student number 1, and so on until the teacher reaches the student number n - 1. After that, the teacher will restart the process, starting with the student number 0 again.

You are given a **0-indexed** integer array chalk and an integer k. There are initially k pieces of chalk. When the student number i is given a problem to solve, they will use chalk[i] pieces of chalk to solve that problem. However, if the current number of chalk pieces is **strictly less** than chalk[i], then the student number i will be asked to **replace** the chalk.

Return *the****index****of the student that will****replace****the chalk*.

**Example 1:**

**Input:** chalk = [5,1,5], k = 22

**Output:** 0

**Explanation:** The students go in turns as follows:

- Student number 0 uses 5 chalk, so k = 17.

- Student number 1 uses 1 chalk, so k = 16.

- Student number 2 uses 5 chalk, so k = 11.

- Student number 0 uses 5 chalk, so k = 6.

- Student number 1 uses 1 chalk, so k = 5.

- Student number 2 uses 5 chalk, so k = 0.

Student number 0 does not have enough chalk, so they will have to replace it.

**Example 2:**

**Input:** chalk = [3,4,1,2], k = 25

**Output:** 1

**Explanation:** The students go in turns as follows:

- Student number 0 uses 3 chalk so k = 22.

- Student number 1 uses 4 chalk so k = 18.

- Student number 2 uses 1 chalk so k = 17.

- Student number 3 uses 2 chalk so k = 15.

- Student number 0 uses 3 chalk so k = 12.

- Student number 1 uses 4 chalk so k = 8.

- Student number 2 uses 1 chalk so k = 7.

- Student number 3 uses 2 chalk so k = 5.

- Student number 0 uses 3 chalk so k = 2.

Student number 1 does not have enough chalk, so they will have to replace it.

**Constraints:**

* chalk.length == n
* 1 <= n <= 105
* 1 <= chalk[i] <= 105
* 1 <= k <= 109