Nearly everyone has used the [Multiplication Table](https://en.wikipedia.org/wiki/Multiplication_table). The multiplication table of size m x n is an integer matrix mat where mat[i][j] == i \* j (**1-indexed**).

Given three integers m, n, and k, return *the*kth*smallest element in the*m x n*multiplication table*.

**Example 1:**

Table

Description automatically generated

**Input:** m = 3, n = 3, k = 5

**Output:** 3

**Explanation:** The 5th smallest number is 3.

**Example 2:**

Calendar

Description automatically generated

**Input:** m = 2, n = 3, k = 6

**Output:** 6

**Explanation:** The 6th smallest number is 6.

**Constraints:**

* 1 <= m, n <= 3 \* 104
* 1 <= k <= m \* n