

Products Matrix



Consider a square $n \times n$ matrix \mathbf{A} . The cell $\mathbf{A}_{i,j}$ is equal to the product $i * j$ (i, j are 1-based). Let's create a one-dimensional array which contains all the elements of the matrix \mathbf{A} . The length of this array will be equal to n^2 . Sort this array and return the element which will be in the k -th position (k is a 1-based index).

Input Format

The only line of input contains numbers n and k .

Constraints

- $1 \leq n \leq 10^5$
- $1 \leq k \leq \min(n^2, 10^9)$

Output Format

Print a single number — the element which will be in the k -th position of the sorted array.

Sample Input 0

```
3 7
```

Sample Output 0

```
6
```

Explanation 0

The matrix will be:

- 1 2 3
- 2 4 6
- 3 6 9

The array after sorting will be: {1, 2, 2, 3, 3, 4, 6, 6, 9}.

Sample Input 1

```
2 4
```

Sample Output 1

```
4
```

Explanation 1

k is 1-based.

Sample Input 2

```
3 8
```

Sample Output 2

6

Sample Input 3

1 1

Sample Output 3

1

Sample Input 4

4 4

Sample Output 4

3