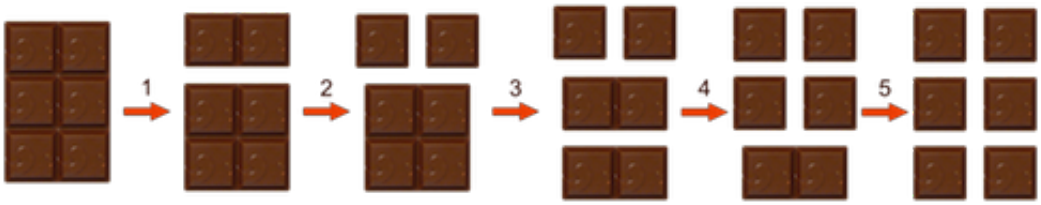
Chocolate

Sverre loves chocolate, and he eats a lot of it. Actually, the only thing he eats is chocolate. Since chocolate is such a big part of Sverre's life, he naturally spends much time on it, and the most time consuming part is of course the chocolate bar splitting. Therefore he asks you to help him optimizing the process.

The original chocolate bar consists of *R* rows with *C* pieces in each row. Sverre has to divide it into *R* * *C* pieces by doing splits.

A split is a simple process. Sverre picks one of the existing chocolate bars with more than one piece, and divides it into two new chocolate bars by cutting along one of the separator lines. The split process is done until all the pieces are separated. The image below shows how to separate all the pieces in a 3x2 chocolate bar with 5 splits.



Given *R* and *C*, what is the least number of splits needed to turn the original chocolate bar into *R* * *C* pieces.

Input:

The input consists of a single line containing two integers: *R* and *C*.

R is the number of rows in the chocolate bar. *C* is the number of pieces in each row.

Output:

Output on a single line, one number, the least number of splits needed to divide the original chocolate bar into *R* * *C* pieces.

Constraints

$1 \leq R \leq 10^4$
$1 \leq C \leq 10^4$

Sample input 1:

```
3 2
```

Sample output 1:

```
5
```

Sample input 2:

```
4 4
```

Sample output 2:

```
15
```