Problem RAFFLE: Raffle

You want to take part in an online raffle for an awesome prize. The drawing procedure is as follows: a limited number of persons, n, is allowed to register. After this number of people has registered, one of them is chosen as the winner. The organizers try to be fair and got a real random number generator. This generator generates a perfectly uniformly distributed integer w. But the range ($0 \leq w < r$) differs from the number of participants. As a workaround, the organizers decided that the ith registrant (0-indexed) wins if $i \cdot r/n \leq w < (i+1) \cdot r/n$. As the random number is an integer and numbers are always rounded down, some participants have better chances to win than others.

The registration website also shows a counter c of already registered people. The next registrant will be the cth one (0-indexed). You want to observe this counter and register in a moment that optimizes your chances of winning. But you have also to consider latency. In half of the tries, you will get the participant number c, in the other half the number $c+1$. If you try to get the last number, you may even be too late and miss the chance to participate in the raffle.

Input

Two numbers are given per testcase. The number of participants n and the range of the random number generator r ($0 < n, r \leq 10\,000$).

Output

Output at which count you should try to register. If two counts lead to the same result, output the earlier one.

Sample Input 1

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100 100
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Sample Output 1

```
0
```

Sample Input 2

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100 99
```

Sample Output 2

```
1
```

Sample Input 3

```
100 101
```

Sample Output 3

```
98
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