Sherlock and Counting

Watson gives Sherlock two integers, n and k, and asks him to count the number of positive integer i's such that:

$$i \cdot (n - i) \leq n \cdot k, \text{ and } i < n$$

Given q queries where each query consists of some n and k, print the number of possible i's for each query on a new line.

Input Format

The first line contains an integer, q, denoting the number of times Watson queries Sherlock.
Each of the q subsequent lines contains two space-separated integers denoting the respective values of n and k for a query.

Constraints

- $1 \leq q \leq 10^5$
- $1 \leq n, k \leq 10^9$

Output Format

For each query, print the number of i's satisfying the given formula on a new line.

Sample Input

```
2
5 1
5 2
```

Sample Output

```
2
4
```

Explanation

Sherlock performs the following $q = 2$ queries:

1. The possible values of i satisfying Watson's formula for $n = 5$ and $k = 1$ are 1 and 4. Because there are two such values, we print 2 on a new line.

2. The possible values of i satisfying Watson's formula for $n = 5$ and $k = 2$ are $1, 2, 3$, and 4. Because there are four such values, we print 4 on a new line.