

University Employees

On some island each inhabitant is either a knight who only tells the truth, or a liar who always lies. Also, on the island there exists a university of technology where some of the inhabitants work. All of the university employees will always tell you the following two things, no matter which employee you ask:

1. There are fewer than N employees who work more than me.
2. At least M employees of the university have a larger salary than me.

It is also known that no two employees of the university have an identical salary, and no two work equally. Write a program which will compute how many persons are employed by this university.

Input

The only input line contains two integers N and M , with one space between them [$N, M \leq 1000000000$].

Output

The output must contain only one integer - the total number of employees of this university, or 0 if there is no way to find the number of employees.

Example

Input:

1 1

Output:

2

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