

PROBLEMS SUBMIT STATUS STANDINGS CUSTOM TEST

A. Domino piling

time limit per test: 2 seconds
memory limit per test: 256 megabytes
input: standard input
output: standard output

You are given a rectangular board of $M \times N$ squares. Also you are given an unlimited number of standard domino pieces of 2×1 squares. You are allowed to rotate the pieces. You are asked to place as many dominoes as possible on the board so as to meet the following conditions:

1. Each domino completely covers two squares.
2. No two dominoes overlap.
3. Each domino lies entirely inside the board. It is allowed to touch the edges of the board.

Find the maximum number of dominoes, which can be placed under these restrictions.

Input

In a single line you are given two integers M and N — board sizes in squares ($1 \leq M \leq N \leq 16$).

Output

Output one number — the maximal number of dominoes, which can be placed.

Examples

input	Copy
2 4	
output	Copy
4	

input	Copy
3 3	
output	Copy
4	

→ Attention

The package for this problem was not updated by the problem writer or Codeforces administration after we've upgraded the judging servers. To adjust the time limit constraint, a solution execution time will be multiplied by 2. For example, if your solution works for 400 ms on judging servers, then the value 800 ms will be displayed and used to determine the verdict.

Codeforces Beta Round #47

Finished

Practice



→ Virtual participation

Virtual contest is a way to take part in past contest, as close as possible to participation on time. It is supported only ICPC mode for virtual contests. If you've seen these problems, a virtual contest is not for you - solve these problems in the archive. If you just want to solve some problem from a contest, a virtual contest is not for you - solve this problem in the archive. Never use someone else's code, read the tutorials or communicate with other person during a virtual contest.

Start virtual contest

→ Clone Contest to Mashup

You can clone this contest to a mashup.

Clone Contest

→ Submit?

Language:

Python 3.8.10

▼

Almost always, if you send a solution on PyPy, it works much faster

Choose file:

Choose File

 No file chosen



Submit

→ Problem tags

greedy math *800

No tag edit access

→ Contest materials

- Announcement 
- Tutorial #1 



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