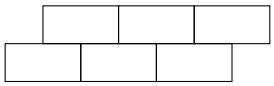
Problem A. Another Brick in the Wall

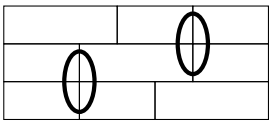
Time limit: 2 seconds
Memory limit: 1024 megabytes

Alice likes building toy walls. She has a lot of 1×2 bricks and a limited supply of 1×3 bricks. Both types of bricks have a height of 1 and can not be rotated.

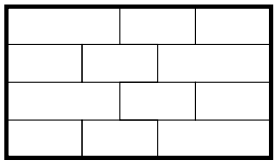
Alice is going to build a one unit thick wall of length l and height h out of these bricks. A wall is *solid* if there are no seams directly above another seam.



Good seam placement



Bad seam placement



Solid 7×4 wall

Help Alice determine the minimum number of 1×3 bricks required to build a solid wall of length l and height h.

Input

The only line contains two integers l and h, denoting the length and the height of the wall ($5 \le l \le 1000$; $2 \le h \le 1000$).

Output

Print the minimum number of 1×3 bricks required to build a solid $l \times h$ wall.

It can be shown that it is always possible to build a solid wall of length l and height h.

Example

standard input	standard output
7 4	4