## Problem M <br> Mini-Tetris 3023

A guy named Gry found a new game called "Mini-Tetris 3023". This small version of Tetris is played on a very long grid only 2 cells high and has just three types of tile:

- A square made out of 4 tiles in a $2 \times 2$ grid.
- An S-tile made out of 4 tiles, 2 on one row and 2 slightly offset on the other
- A corner made out of 3 tiles, 1 on one row and 2 on the other

Tiles may be rotated $0,90,180$, or 270 degrees to fit amongst each other, however, they cannot overlap or go outside the vertical boundary of the grid.


Square


S-tile


Corner

This game provides $a$ squares, $b$ S-tiles, and $c$ corners. Gry would like to beat the high score by creating the largest-possible contiguous $2 \times n$ rectangle out of some or all of the provided tiles, without any tiles overlapping or sticking out of the rectangle.

## Input

- The sole line of input contains three integers $a, b$, and $c(0 \leq a, b, c \leq 50)$ - the number of squares, S-tiles, and corners, respectively.


## Output

Output the maximum possible width of the grid, $n$, that can be perfectly filled by some or all of the given tiles without overlapping or overstepping the boundaries.

## Sample Input 1 <br> Sample Output 1

| 2 | 2 | 11 |
| :--- | :--- | :--- |

Sample Input 2
Sample Output 2
111 2

Sample Input 3
Sample Output 3
000

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