

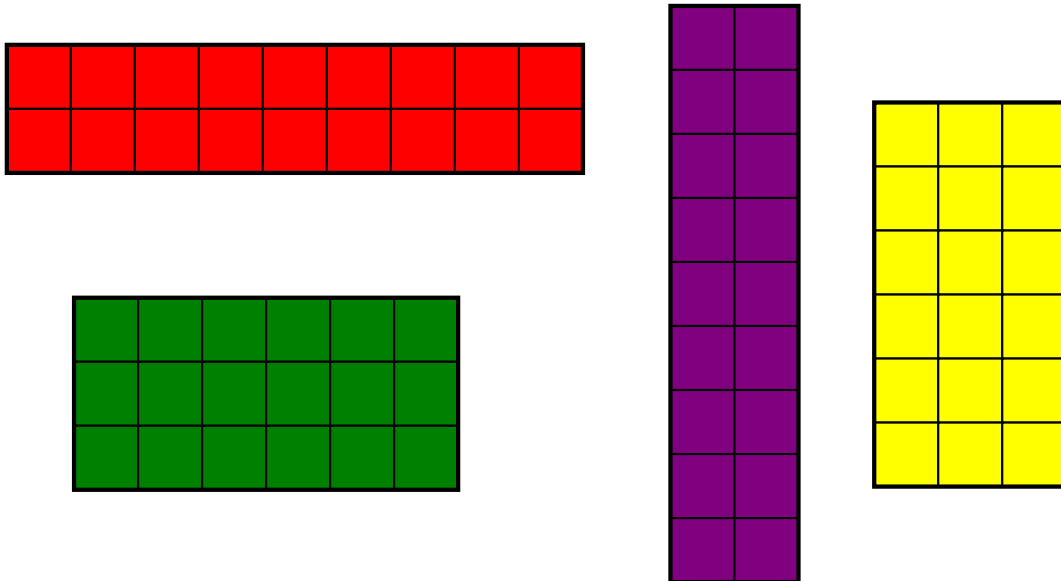
## 2013-UA-01-3.odt Colourful Table

0 ----	I: ----	II: medium	III: easy	IV: ----	
<input type="checkbox"/> ALG	<input type="checkbox"/> INF	<input type="checkbox"/> STRUC	<input type="checkbox"/> PUZ	<input type="checkbox"/> SOC	<input type="checkbox"/> USE

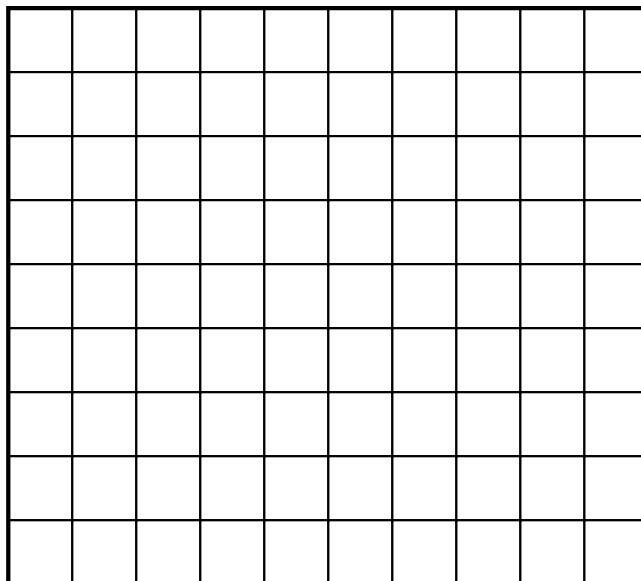
Answer Type: Multiple Choice (may be interactive)

### Body

A little beaver would like to pave his new room with different coloured tiles:



He decided that he will not rotate or cut the tiles in any way.



He wants to make his room as colorful as possible.

## Question

What is the most number of different colours he can use ?

- a) 1
- b) 2
- c) 3
- d) 4

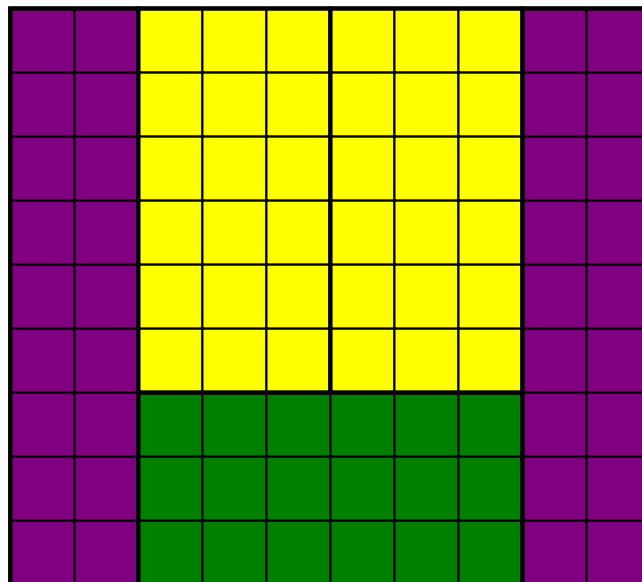
## Answer

c) 3

## Explanation

It is impossible to pave red tile of width 9, because there is no tile with the width of 1. We can use all the other tiles.

For example:



## It's informatics

The partition on the subsets of given sizes is one of the classical problems in the Algorithms theory.

It is packing problem, where we have an area and we decide how to cover the area with certain shapes.

## Keywords

Partition, graphical algorithm

## Websites

## Internal Use Wording

## Comments

Christian Datzko, Switzerland, [christian.datzko@edubs.ch](mailto:christian.datzko@edubs.ch): the same comments as for 2013-UA-01-1 apply, see ../2013-UA-01-1/2014-UA-01-review.ods.

Špela Cerar, 2014-06-03: Could be interactive, changed wording  
Peter Garscha, Austria, [peter@rlsux.com](mailto:peter@rlsux.com), 2014-06-03: svg-graphics missing, it's informatics need more explanation.

Ahto Truu, [ahto.truu@ut.ee](mailto:ahto.truu@ut.ee) (2014-09-25): regenerated all graphics in SVN and PNG.

## Files

2013-UA-01-3.odt (this file)

floor9x10.png

floor9x10.svg

tile2x9red.png

tile2x9red.svg

tile3x6green.png

tile3x6green.svg

tile6x3yellow.png

tile6x3yellow.svg

tile9x2purple.png

tile9x2purple.svg

floor9x10answer.png

floor9x10answer.svg

## Authorship

author: Maria Hasanova, [osvitarda@rambler.ru](mailto:osvitarda@rambler.ru)

translating: Lesia Ilishchuk, [ilishchuk@i.ua](mailto:ilishchuk@i.ua)

review: Špela and Maciej

## License

Copyright ©2013 Bebras - International Contest on Informatics and Computer Fluency.  
This work is licensed under Creative Commons Attribution-NonCommercial-ShareAlike 3.0 Unported (CC BY-NC-SA 3.0).

Visit: <http://creativecommons.org/licenses/by-nc-sa/3.0/>