

BACK

Magical Well



DESCRIPTION

SOLUTIONS 9232

COMMENTS 20



CODEWRITING

SCORE: 300/300

You are standing at a magical well. It has two positive integers written on it:  $a$  and  $b$ . Each time you cast a magic marble into the well, it gives you  $a * b$  dollars and then both  $a$  and  $b$  increase by 1. You have  $n$  magic marbles. How much money will you make?

### Example

For  $a = 1$ ,  $b = 2$  and  $n = 2$ , the output should be  
`magicalWell(a, b, n) = 8`.

You will cast your first marble and get \$2, after which the numbers will become 2 and 3. When you cast your second marble, the well will give you \$6. Overall, you'll make \$8. So, the output is 8.

### Input/Output

- [execution time limit] 4 seconds (js)
- [input] integer  $a$

*Guaranteed constraints:*

$$1 \leq a \leq 2000.$$

- [input] integer  $b$

*Guaranteed constraints:*

$$1 \leq b \leq 2000.$$

- [input] integer  $n$

The number of magic marbles in your possession, a non-negative integer.

*Guaranteed constraints:*

$$0 \leq n \leq 5.$$

- [output] integer

### [JavaScript (ES6)] Syntax Tips

```
// Prints help message to the console
// Returns a string
function helloWorld(name) {
```

