K Base

All submissions
Best submissions

Points: 100 (partial)
Time limit: 0.4s
Memory limit: 32M
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Tags
Dynamic Programming
Difficulty
Easy

K base

Let's consider **K**-based numbers, containing exactly **N** digits. We define a number to be valid if its **K**-based notation doesn't contain two successive zeros. For example:

- 1010230 is a valid 7-digit number
- 1000198 is not a valid number
- 0001235 is not a 7-digit number, it is a 4-digit number

Given two numbers **N** and **K**, you are to calculate the amount of valid **K** based numbers, containing **N** digits.

Input

- Input is read from the console
  - **N** is given on the first line
  - **K** is given on the second line

Output

- Output should be printed on the console

Constraints

- 2 <= **K** <= 10
- 2 <= **N**
- **N** + **K** <= 18

Sample tests

Input

```
2
10
```

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Output

```
90
```

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Comments

There are no comments at the moment.