P0014. Numerical valleys P80868_en

Your task is to write a program that, given two natural numbers n and r, uses n to print a valley with r rows as it is shown at the instances. Notice that, the last row has r numbers n separated by dashes, the central dot, and r numbers n separated by dashes, that each row has two numbers n less than the row immediataly below, and that the part of the middle has to be filled with as many dots as necessary.

To solve this problem, you must implement *recursively* the function

int *number_of_digits*(**int** n);

that returns the number of digits of |n|, under the precondition $|n| \geq 0$.

Input

The input consists of two natural numbers n and r, with $r > 0$.

Output

Your program must print a valley of r rows using the number n as can be seen in the instances.

Observations

- Using strings is not allowed. Obviously, you can not use vectors either.
- Remember to implement |number_of_digits(n)| recursively.

Sample input 1

```
10004
3
```

Sample output 1

```
10004.......................10004
10004-10004.............10004-10004
10004-10004-10004.10004-10004-10004
```

Sample input 2

```
0
6
```

Sample output 2

```
0.....................0
0-0.................0-0
0-0-0.............0-0-0
0-0-0-0.........0-0-0-0
0-0-0-0-0.....0-0-0-0-0
0-0-0-0-0-0.0-0-0-0-0-0
```

Sample input 3

```
987654321
1
```

Sample output 3

```
987654321.987654321
```

Problem information

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