Obfuscation S47315_en

Obfuscation of a string $s = c_1c_2c_3 \dots c_k$ with respect to a natural number n consists of changing all the letters $c_i \in s$ by the letter that is n places after c_i in the alphabet.
For example, `ofuscacio(1,'A') = 'B'`, because `'B'` is one place after `'A'`. Other examples: `ofuscacio(4,'B') = 'F'` and `ofuscacio(2,'AB') = 'CD'`.

The function **recursive** `void ofuscacio(int n, string s)` must be implemented with the following specification:

`PRE:` The input is an integer n such that $0 \leq n \leq 20$ and a string of characters $s = c_1c_2c_3 \dots c_k$ such that $k > 0$ and $\forall c_i \in s, ' A' \leq c_i \leq ' F'$.

`POST:` writes to the output channel `cout` the obfuscation of the string of characters s with respect to n.

Observation

If necessary, you can use the method `pop_back()` for vectors and `string`.
Only recursive solutions are accepted.
Just send the function. The rest will be ignored.

Input

An integer n such that $0 \leq n \leq 20$ and a string of characters $s = c_1c_2c_3 \dots c_k$ such that $k > 0$ and $\forall c_i \in s, ' A' \leq c_i \leq ' F'$.

Output

For each pair `n, s`, the obfuscation of `s` with respect to `n`.

Sample input 1

```
1 ABCD
2 ABC
0 ABC
5 DDFA
```

Sample output 1

```
BCDE
CDE
ABC
IIKF
```

Problem information

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