Problem Statement

You are given two s: **N** and **K**. Lun the dog is interested in strings that satisfy the following conditions:

- The string has exactly **N** characters, each of which is either 'A', 'B' or 'C'.
- The string s has exactly **K** pairs (i, j) $(0 <= i < j <= N-1)$ such that $s[i] < s[j]$.

If there exists a string that satisfies the conditions, find and return any such string. Otherwise, return an empty string.

Definition

Class: ABC

Method: createString

Parameters: int, int

Returns: string

Method signature: string createString(int N, int K)

(be sure your method is public)

Limits

Time limit (s): 2.000

Memory limit (MB): 256

Constraints

- N will be between 3 and 30, inclusive.

- K will be between 0 and N(N-1)/2, inclusive.

Examples

0)

3

3

Returns: "ABC"

This string has exactly three pairs (i, j) mentioned in the statement: (0, 1), (0, 2) and (1, 2).

1)

3

0

Returns: "CBA"

Please note that there are valid test cases with K = 0.

2)

5

10

Returns: ""

Five characters is too short for this value of K.

3)

15