
Antipalindromic words

P89248_en

Examen final d'Algorismia, FME (2011-01-12)

In this problem, we say that a word is antipalindromic if it does not contain any subword that is a palindrome (with the exception of empty subwords and single letters). Write a program that prints all the antipalindromic words of length n that can be made up with the first x lowercase letters.

Input

Input consists of n and x . Suppose $1 \leq n \leq 50$ and $1 \leq x \leq 26$.

Output

Print, in alphabetic order, all the antipalindromic words of length n that can be made up with the first x lowercase letters.

Sample input 1

8 3

Sample output 1

```
abcabcab
acbabcac
bacbacba
bcabcabc
cabcabca
cbacbacb
```

Sample input 2

3 4

Sample output 2

```
abc
abd
acb
acd
adb
adc
bac
bad
bca
bcd
bda
bdc
cab
cad
cba
cbd
cda
cdb
dab
dac
dba
dbc
dca
dcb
```

Problem information

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Generation : 2013-09-02 15:49:24

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