**Fibonacci String Sequences**

One of the most famous families of sequences in mathematics is the family of Fibonacci

sequences. A Fibonacci sequence begins with two chosen values and is such that every value

thereafter is the sum of the previous two. For example, if we choose to begin the sequence with

0 and 1, respectively, we get:

0*,* 1*,* 1*,* 2*,* 3*,* 5*,* 8*,* 13*,* 21*,* 34*,* 55*,* 89*, . . .*

The same idea can be applied to character strings. However, rather than adding two consecutive

elements of a sequence to compute the next one, we concatenate them. For example, if we start

with the strings a and ba, we get the sequence:

a, ba, aba, baaba, ababaaba, baabaababaaba, ababaababaabaababaaba, *. . .*

Develop a program that, given a positive integer *m* and two character strings, *s*1 and *s*2,

displays the first *m* elements of the Fibonacci string sequence (as defined above) whose first

two elements are *s*1 and *s*2, respectively.

Input: The first line contains a positive integer *n* indicating how many instances of the problem

are described thereafter. Each instance of the problem is described on three lines, the first of

which contains a positive integer *m*, the second of which contains a string *s*1, and the third of

which contains a string *s*2. (Neither *s*1 nor *s*2 contains any spaces (or, more generally, “white

space”).)

Output: For each triple (*m, s*1*, s*2) given as input, display the first *m* elements of the Fibonacci

string sequence that begins with *s*1 and *s*2, respectively, one string per line, and followed by a

blank line.

Sample input

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2

6

a

ba

7

spock

kirk

Corresponding output

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a

ba

aba

baaba

ababaaba

baabaababaaba

spock

kirk

spockkirk

kirkspockkirk

spockkirkkirkspockkirk

kirkspockkirkspockkirkkirkspockkirk

spockkirkkirkspockkirkkirkspockkirkspockkirkkirkspockkirk