



Problem B
Fibonacci Strings

Input File: B.DAT

Program Source File: B.PAS or B.C or B.CPP

A Fibonacci string $F(n)$ for a natural number n is defined as:

$F(1) = 'A'$

$F(2) = 'B'$

$F(n) = F(n-1) + F(n-2), n > 2$

where $+$ denotes string concatenation.

Write a program that counts occurrences of a given string S consisting of characters 'A' and 'B' only, in the given Fibonacci string $F(n)$. The maximum length of S is 25, the maximum value of the given n is 35, and the result has up to 8 digits.

The input file contains a sequence of input data sets. Each data set is given in one line, consisting of an integer n and a string S . The input should be read from the file. The input is guaranteed to be correct.

The output should be printed on the standard output. For each given input data set, print one integer number in a single line that gives the result (the number of occurrences of S in $F(n)$). An example is given in Figure 1.

input		output
1	A	1
2	ABA	0
6	AB	3
8	BBABAB	3
35	BBABAB	1346268

Figure 1. Program input/output sample