A string is called *binary* if it consists only of the characters 0 and 1.

String v is called a *substring* of string w if it has a nonzero length, and it can be read, starting from some position, in string w. For example, line 010 has six substrings: 0, 1, 0, 01, 10, 010. Two substrings are considered different if their occurrence positions are different. In other words, each substring must be counted as many times as it occurs.

Given a binary string s. Your task is to find the number of its substrings containing exactly k units.

The first line contains a single integer k ($0 \leq k \leq 10^6$). The second line contains a non-empty binary string s. Length s does not exceed 10^6 characters.

Print a single integer – the number of substrings of a given string containing exactly k units.

Sample input:
1
1010

Sample output:
6