

Virus Infection

There are N people standing in a row, you are given a string s of length N where $s[i] = '1'$ if i^{th} person is infected with a virus and $s[i] = '0'$ if not infected. Given K , i^{th} person can infect up to K people on his left side and up to K people on his right side. Now the newly infected people can't further spread the virus. Find the total number of people who are infected with the virus.

Example 1:

Input:

$s = "00100100"$

$K = 1$

Output:

6

Explanation: Both third and sixth person can infect one person on their left side and one on their right side.

Example 2:

Input:

$s = "0010100"$

$K = 1$

Output:

5

Explanation: Third person can infect one person on his left side and one on his right side. Fifth person can infect one person on his right side, the person on the left side of fifth person already got infected by the third person.

Your Task: You don't need to read input or print anything. Your task is to complete the function **virusInfection()** which takes the string s and integer K as input parameters and returns the total number of people who are infected with the virus.

Constraints:

$$1 \leq |s| \leq 2 \cdot 10^5$$

$$1 \leq K \leq 2 \cdot 10^5$$