You are given a binary string s. You are allowed to perform two types of operations on the string in any sequence:

* **Type-1: Remove** the character at the start of the string s and **append** it to the end of the string.
* **Type-2: Pick** any character in s and **flip** its value, i.e., if its value is '0' it becomes '1' and vice-versa.

Return *the****minimum****number of****type-2****operations you need to perform* *such that*s *becomes****alternating****.*

The string is called **alternating** if no two adjacent characters are equal.

* For example, the strings "010" and "1010" are alternating, while the string "0100" is not.

**Example 1:**

**Input:** s = "111000"

**Output:** 2

**Explanation**: Use the first operation two times to make s = "100011".

Then, use the second operation on the third and sixth elements to make s = "101010".

**Example 2:**

**Input:** s = "010"

**Output:** 0

**Explanation**: The string is already alternating.

**Example 3:**

**Input:** s = "1110"

**Output:** 1

**Explanation**: Use the second operation on the second element to make s = "1010".

**Constraints:**

* 1 <= s.length <= 105
* s[i] is either '0' or '1'.