A binary string is monotone increasing if it consists of some number of 0's (possibly none), followed by some number of 1's (also possibly none).

You are given a binary string s. You can flip s[i] changing it from 0 to 1 or from 1 to 0.

Return *the minimum number of flips to make* s *monotone increasing*.

**Example 1:**

Input: s = "00110"  
Output: 1  
Explanation: We flip the last digit to get 00111.

**Example 2:**

Input: s = "010110"  
Output: 2  
Explanation: We flip to get 011111, or alternatively 000111.

**Example 3:**

Input: s = "00011000"  
Output: 2  
Explanation: We flip to get 00000000.

**Constraints:**

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