

## Task Name

Minimum Swaps to Balance Brackets 1

## Difficulty

Easy

## Problem Description

You may swap any two brackets. Find the minimum number of swaps needed to make the string balanced.

## Problem Statement

A string is balanced if every opening bracket [ has a corresponding closing bracket ] in the correct order.

You are given a string  $s$  consisting only of [ and ].

In one swap, you may choose any two positions in the string and exchange their characters.

Your task is to determine the minimum number of swaps required to make  $s$  balanced.

## Input Format

- A single string  $s$  containing only [ and ].

## Constraints

- $1 \leq |s| \leq 10^5$
- The length of  $s$  is even
- $s$  contains an equal number of [ and ]

## Output Format

Print one integer: the minimum number of swaps required to make the string balanced.

## Example 1

### Input

[]][

### Output

1

### Explanation

Swap the middle ] with the last [ to get [] [] [].

### Example 2

#### Input

[] []

#### Output

0

### Explanation

The string is already balanced.

### Tags

Strings, Greedy, Brackets

### Reference Solution Idea

Scan the string and keep track of unmatched opening brackets. Whenever a closing bracket matches the most recent unmatched opening bracket, remove that pair. At the end, the remaining unmatched opening brackets determine the number of swaps needed.

### Complexity

- Time:  $O(n)$
- Space:  $O(n)$

### Suggested testcase roles

- input00/output00 -> Sample, strength 0
- input01/output01 -> Sample, strength 0
- input02/output02 -> Hidden, strength 20
- input03/output03 -> Hidden, strength 20
- input04/output04 -> Hidden, strength 20
- input05/output05 -> Hidden, strength 20
- input06/output06 -> Hidden, strength 20