

# I: Ignoble Imp

Problem author: Jannik Olbrich

## Problem

Given two strings  $a, b$  of length  $n$ , find a string  $c$  of length  $n$  such that  $\max\{h(a, c), h(b, c)\}$  is minimal, where  $h(a, c)$  is the Hamming distance between  $a$  and  $c$ .

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## Solution

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## Solution

- When  $a[i] = b[i]$ , just set  $c[i] = a[i]$ .
- For half of the other indices, choose the character from  $a$ . For the other half of the indices, choose the character from  $b$ .