

1432. Max Difference You Can Get From Changing an Integer

Description

You are given an integer `num`. You will apply the following steps exactly **two** times:

- Pick a digit `x` ($0 \leq x \leq 9$).
- Pick another digit `y` ($0 \leq y \leq 9$). The digit `y` can be equal to `x`.
- Replace all the occurrences of `x` in the decimal representation of `num` by `y`.
- The new integer **cannot** have any leading zeros, also the new integer **cannot** be 0.

Let `a` and `b` be the results of applying the operations to `num` the first and second times, respectively.

Return *the max difference* between `a` and `b`.

Example 1:

Input: `num = 555`

Output: `888`

Explanation: The first time pick `x = 5` and `y = 9` and store the new integer in `a`.

The second time pick `x = 5` and `y = 1` and store the new integer in `b`.

We have now `a = 999` and `b = 111` and max difference = 888

Example 2:

Input: `num = 9`

Output: `8`

Explanation: The first time pick `x = 9` and `y = 9` and store the new integer in `a`.

The second time pick `x = 9` and `y = 1` and store the new integer in `b`.

We have now `a = 9` and `b = 1` and max difference = 8

Constraints:

- $1 \leq \text{num} \leq 10^8$

