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

* Pick a digit x (0 <= x <= 9).
* Pick another digit y (0 <= y <= 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

**Example 3:**

**Input:** num = 123456

**Output:** 820000

**Example 4:**

**Input:** num = 10000

**Output:** 80000

**Example 5:**

**Input:** num = 9288

**Output:** 8700

**Constraints:**

* 1 <= num <= 10^8