37. Max Difference You Can Get From Changing an Integer

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.

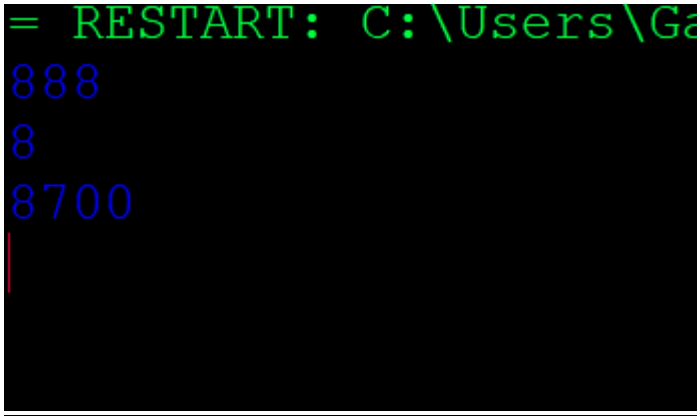
Return the max difference between a and b.

Code:

```
def maxDiff(num):
    num_str = str(num)
    for digit in num_str:
        if digit != '9':
            a = num_str.replace(digit, '9')
            break
    else:
        a = num_str
    if num_str[0] != '1':
        b = num_str.replace(num_str[0], '1')
    else:
        for digit in num_str[1:]:
            if digit not in '01':
                b = num_str.replace(digit, '0')
                break
        else:
            b = num_str

    a = int(a)
    b = int(b)
    return a - b
print(maxDiff(555))
print(maxDiff(9))
print(maxDiff(9288))
```

Output:



Time Complexity:

- T(n)= O(d)