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6151. Count Special Integers

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We call a positive integer **special** if all of its digits are **distinct**.

Given a **positive** integer n, return *the number of special integers that belong to the interval* $[1, n]$.

User Accepted:	0
User Tried:	0
Total Accepted:	0
Total Submissions:	0
Difficulty:	Hard

Example 1:

```
Input: n = 20
Output: 19
Explanation: All the integers from 1 to 20, except 11, are special. Thus, there are 19 special i
```

Example 2:

```
Input: n = 5
Output: 5
Explanation: All the integers from 1 to 5 are special.
```

Example 3:

```
Input: n = 135
Output: 110
Explanation: There are 110 integers from 1 to 135 that are special.
Some of the integers that are not special are: 22, 114, and 131.
```

Constraints:

- $1 <= n <= 2 * 10^9$

JavaScript ▼   ⟨⚌⟩ ⟳ ⚙

```javascript
 1  const countSpecialNumbers = (N) => countNumberWithoutRepeatedDigit(N);
 2
 3  let res, n;
 4  const countNumberWithoutRepeatedDigit = (N) => {
 5      n = N;
 6      res = 0;
 7      dfs(0, 1023);
 8      return res - 1;
 9  };
10
11  const checkIthBit = (x, i) => x & (1 << i);
12
13  const dfs = (cur, rem) => {
14      if (cur > n) return;
15      res++;
16      for (let i = cur == 0 ? 1 : 0; i < 10; i++) {
17          if (checkIthBit(rem, i)) {
18              dfs(cur * 10 + i, rem ^ (1 << i))
19          }
20      }
21  };
```

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