535B - Тавас и СаДДас

Sol1: Consider n has x digits, $f(i) =$ decimal representation of binary string i, m is a binary string of size x and its i - th digit is 0 if and only if the i - th digit of n is 4. Finally, answer equals to $2^1 + 2^2 + \ldots + 2^{x-1} + f(m) + 1$.

Time complexity: $O(log(n))$

Sol2: Count the number of lucky numbers less than or equal to n using bitmask (assign a binary string to each lucky number by replacing 4s with 0 and 7s with 1).

Time complexity: $O(2^{log(n)})$

Code by **PrinceOfPersia**

Another Code by **SoroushE**

Another Code by **Haghani**

Python Code by **Zlobober**