1067. Digit Count in Range Premium

Hard | Topics | Companies | Hint

Given a single-digit integer `d` and two integers `low` and `high`, return *the number of times that* `d` *occurs as a digit in all integers in the inclusive range* `[low, high]`.

Example 1:

> **Input:** d = 1, low = 1, high = 13
> **Output:** 6
> **Explanation:** The digit d = 1 occurs 6 times in 1, 10, 11, 12, 13.
> Note that the digit d = 1 occurs twice in the number 11.

Example 2:

> **Input:** d = 3, low = 100, high = 250
> **Output:** 35
> **Explanation:** The digit d = 3 occurs 35 times in 103,113,123,130,131,...,238,239,243.

Constraints:

- `0 <= d <= 9`
- `1 <= low <= high <= 2 * 10^8`

Seen this question in a real interview before? 1/5

Yes No

Accepted **4.2K** | Submissions **9.2K** | Acceptance Rate **46.4%**

Topics

Math Dynamic Programming

Companies

0 - 6 months

Amazon 2

Hint 1

Define a function f(x) to get the requested sum from 1 to x. So the answer will be f(hi) - f(lo - 1)

Hint 2

In order to solve f(x) we need to do a DP over digits approach.

Similar Questions

Number of Digit One Hard

Sum of Numbers With Units Digit K Medium

Discussion (1)