Problem 1067: Digit Count in Range

Problem Information

Difficulty: Hard
Acceptance Rate: 46.28%
Paid Only: Yes
Tags: Math, Dynamic Programming

Problem Description

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 * 108`

Code Snippets

C++:

```
class Solution {
public:
int digitsCount(int d, int low, int high) {
```

```
}
};
```

Java:

```
class Solution {
public int digitsCount(int d, int low, int high) {

}
}
```

Python3:

```
class Solution:
def digitsCount(self, d: int, low: int, high: int) -> int:
```