1742. Maximum Number of Balls in a Box

Solved ●

Easy Topics Companies Hint

You are working in a ball factory where you have `n` balls numbered from `lowLimit` up to `highLimit` **inclusive** (i.e., `n == highLimit - lowLimit + 1`), and an infinite number of boxes numbered from `1` to `infinity`.

Your job at this factory is to put each ball in the box with a number equal to the sum of digits of the ball's number. For example, the ball number `321` will be put in the box number `3 + 2 + 1 = 6` and the ball number `10` will be put in the box number `1 + 0 = 1`.

Given two integers `lowLimit` and `highLimit`, return *the number of balls in the box with the most balls.*

Example 1:

> **Input:** lowLimit = 1, highLimit = 10
> **Output:** 2
> **Explanation:**
> Box Number: 1 2 3 4 5 6 7 8 9 10 11 ...
> Ball Count: 2 1 1 1 1 1 1 1 1 0 0 ...
> Box 1 has the most number of balls with 2 balls.

Example 2:

> **Input:** lowLimit = 5, highLimit = 15
> **Output:** 2
> **Explanation:**
> Box Number: 1 2 3 4 5 6 7 8 9 10 11 ...
> Ball Count: 1 1 1 1 2 2 1 1 1 0 0 ...
> Boxes 5 and 6 have the most number of balls with 2 balls in each.

Example 3:

> **Input:** lowLimit = 19, highLimit = 28
> **Output:** 2
> **Explanation:**
> Box Number: 1 2 3 4 5 6 7 8 9 10 11 12 ...
> Ball Count: 0 1 1 1 1 1 1 1 1 2 0 0 ...
> Box 10 has the most number of balls with 2 balls.

Constraints:

- `1 <= lowLimit <= highLimit <= 10^5`

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

Yes No

Accepted 63K Submissions 85.9K Acceptance Rate 73.4%

Topics

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Hint 1

Hint 2

Discussion (8)