2523. Closest Prime Numbers in Range

Solved ●

Medium Topics Companies Hint

Given two positive integers `left` and `right`, find the two integers `num1` and `num2` such that:

- `left <= num1 < num2 <= right` .
- Both `num1` and `num2` are prime numbers.
- `num2 - num1` is the **minimum** amongst all other pairs satisfying the above conditions.

Return the positive integer array `ans = [num1, num2]`. If there are multiple pairs satisfying these conditions, return the one with the **smallest** `num1` value. If no such numbers exist, return `[-1, -1]`.

Example 1:

> **Input:** left = 10, right = 19
> **Output:** [11,13]
> **Explanation:** The prime numbers between 10 and 19 are 11, 13, 17, and 19.
> The closest gap between any pair is 2, which can be achieved by [11,13] or [17,19].
> Since 11 is smaller than 17, we return the first pair.

Example 2:

> **Input:** left = 4, right = 6
> **Output:** [-1,-1]
> **Explanation:** There exists only one prime number in the given range, so the conditions cannot be satisfied.

Constraints:

- $1 <= left <= right <= 10^6$

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Yes No

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Hint 1

Hint 2

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