

3037. Find Pattern in Infinite Stream II Premium

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You are given a binary array `pattern` and an object `stream` of class `InfiniteStream` representing a **0-indexed** infinite stream of bits.

The class `InfiniteStream` contains the following function:

- `int next()`: Reads a **single** bit (which is either `0` or `1`) from the stream and returns it.

Return the **first starting** index where the pattern matches the bits read from the stream. For example, if the pattern is `[1, 0]`, the first match is the highlighted part in the stream `[0, 1, 0, 1, ...]`.

Example 1:

Input: `stream = [1,1,1,0,1,1,1,...]`, `pattern = [0,1]`

Output: 3

Explanation: The first occurrence of the pattern `[0,1]` is highlighted in the stream `[1,1,1,0,1,...]`, which starts at index 3.

Example 2:

Input: `stream = [0,0,0,0,...]`, `pattern = [0]`

Output: 0

Explanation: The first occurrence of the pattern `[0]` is highlighted in the stream `[0,...]`, which starts at index 0.

Example 3:

Input: `stream = [1,0,1,1,0,1,1,0,1,...]`, `pattern = [1,1,0,1]`

Output: 2

Explanation: The first occurrence of the pattern `[1,1,0,1]` is highlighted in the stream `[1,0,1,1,0,1,...]`, which starts at index 2.