

# 1081. Video Stitching

## Difficulty : Medium

<https://leetcode.com/problems/video-stitching>

You are given a series of video clips from a sporting event that lasted `time` seconds. These video clips can be overlapping with each other and have varying lengths.

Each video clip is described by an array `clips` where `clips[i] = [starti, endi]` indicates that the *i*th clip started at `starti` and ended at `endi`.

We can cut these clips into segments freely.

- For example, a clip `[0, 7]` can be cut into segments `[0, 1] + [1, 3] + [3, 7]`.

Return *the minimum number of clips needed so that we can cut the clips into segments that cover the entire sporting event* `[0, time]`. If the task is impossible, return `-1`.

### Example 1:

**Input:** `clips = [[0,2],[4,6],[8,10],[1,9],[1,5],[5,9]]`, `time = 10`

**Output:** `3`

**Explanation:** We take the clips `[0,2]`, `[8,10]`, `[1,9]`; a total of 3 clips.

Then, we can reconstruct the sporting event as follows:

We cut `[1,9]` into segments `[1,2] + [2,8] + [8,9]`.

Now we have segments `[0,2] + [2,8] + [8,10]` which cover the sporting event `[0, 10]`.

### Example 2:

**Input:** `clips = [[0,1],[1,2]]`, `time = 5`

**Output:** `-1`

**Explanation:** We cannot cover `[0,5]` with only `[0,1]` and `[1,2]`.

### Example 3:

**Input:** `clips = [[0,1],[6,8],[0,2],[5,6],[0,4],[0,3],[6,7],[1,3],[4,7],[1,4],[2,5],[2,6],[3,4],[4,5],[5,7],[6,9]]`, `time = 9`

**Output:** `3`

**Explanation:** We can take clips `[0,4]`, `[4,7]`, and `[6,9]`.

### Constraints:

- `1 <= clips.length <= 100`
- `0 <= starti <= endi <= 100`
- `1 <= time <= 100`