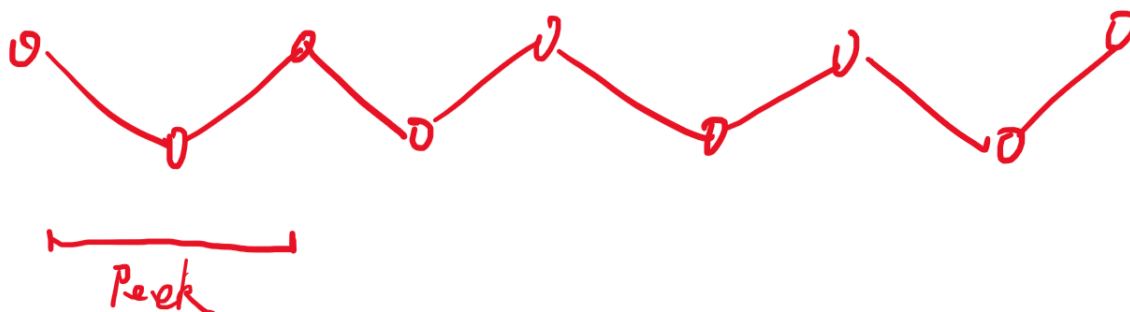
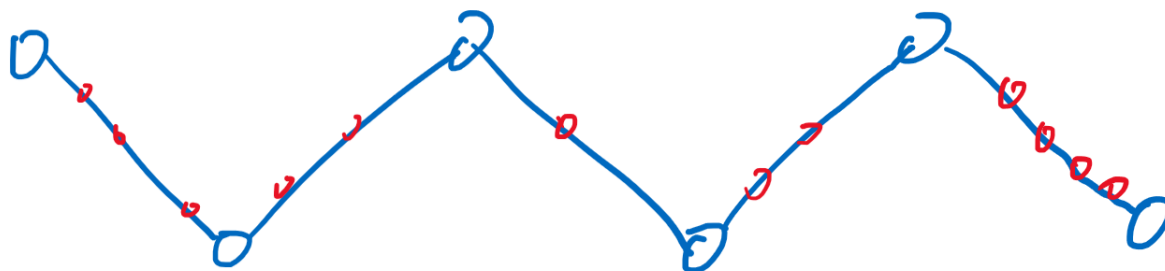


376. wiggle-subsequence

证明：所有极值点即答案（最多选择）

反证：可能产生极值的点不可能比所有真实极值点还多



任意两个peak之间必定产生一个valley。不可能构造的valley比真实的还多。
假设不成立。

```

1 class Solution {
2     public int wiggleMaxLength(int[] nums) {
3         int i = 0, j = 0;
4         for (; i < nums.length && j < nums.length; i++) {
5             while (j > 0 && j < nums.length && nums[j] == nums[j - 1])
6                 j++;
7             if (j < nums.length) nums[i] = nums[j++];
8         }
9         if (i <= 2) return 1;
10        int res = 2;
11        for (j = 1; j < i - 1; j++) {
12            if ((nums[j] - nums[j - 1]) * (nums[j] - nums[j + 1]) > 0)
13                res++;
14        }
15        return res;
16    }
17 }

```

```

1 class Solution:
2     def wiggleMaxLength(self, nums: List[int]) -> int:
3         i, j = 0, 0
4         while i < len(nums) and j < len(nums):
5             while j > 0 and j < len(nums) and nums[j] == nums[j - 1]: j
6                 += 1
7             if j < len(nums):
8                 nums[i] = nums[j]
9                 j += 1
10            i += 1
11        if i <= 2: return 1
12        res = 2
13        for j in range(1, i - 1):
14            if (nums[j] - nums[j - 1]) * (nums[j] - nums[j + 1]) > 0: res
15                += 1
16        return res

```