1191. K-Concatenation Maximum Sum

Description

Given an integer array `arr` and an integer `k`, modify the array by repeating it `k` times.

For example, if `arr = [1, 2]` and `k = 3` then the modified array will be `[1, 2, 1, 2, 1, 2]`.

Return the maximum sub-array sum in the modified array. Note that the length of the sub-array can be `0` and its sum in that case is `0`.

As the answer can be very large, return the answer **modulo** `10^9 + 7`.

Example 1:

```
Input: arr = [1,2], k = 3
Output: 9
```

Example 2:

```
Input: arr = [1,-2,1], k = 5
Output: 2
```

Example 3:

```
Input: arr = [-1,-2], k = 7
Output: 0
```

Constraints:

- `1 <= arr.length <= 10^5`
- `1 <= k <= 10^5`
- `-10^4 <= arr[i] <= 10^4`