2528. Maximize the Minimum Powered City

Description

You are given a **0-indexed** integer array `stations` of length `n`, where `stations[i]` represents the number of power stations in the `i th` city.

Each power station can provide power to every city in a fixed **range**. In other words, if the range is denoted by `r`, then a power station at city `i` can provide power to all cities `j` such that `|i - j| <= r` and `0 <= i, j <= n - 1`.

- Note that `|x|` denotes **absolute** value. For example, `|7 - 5| = 2` and `|3 - 10| = 7`.

The **power** of a city is the total number of power stations it is being provided power from.

The government has sanctioned building `k` more power stations, each of which can be built in any city, and have the same range as the pre-existing ones.

Given the two integers `r` and `k`, return *the **maximum possible minimum power** of a city, if the additional power stations are built optimally.*

Note that you can build the `k` power stations in multiple cities.

Example 1:

```
Input: stations = [1,2,4,5,0], r = 1, k = 2
Output: 5
Explanation:
One of the optimal ways is to install both the power stations at city 1.
So stations will become [1,4,4,5,0].
- City 0 is provided by 1 + 4 = 5 power stations.
- City 1 is provided by 1 + 4 + 4 = 9 power stations.
- City 2 is provided by 4 + 4 + 5 = 13 power stations.
- City 3 is provided by 5 + 4 = 9 power stations.
- City 4 is provided by 5 + 0 = 5 power stations.
So the minimum power of a city is 5.
Since it is not possible to obtain a larger power, we return 5.
```

Example 2:

```
Input: stations = [4,4,4,4], r = 0, k = 3
Output: 4
Explanation:
It can be proved that we cannot make the minimum power of a city greater than 4.
```

Constraints:

- `n == stations.length`
- `1 <= n <= 10^5`
- `0 <= stations[i] <= 10^5`
- `0 <= r <= n - 1`
- `0 <= k <= 10^9`