

# 1383. Maximum Performance of a Team

## Description

You are given two integers `n` and `k` and two integer arrays `speed` and `efficiency` both of length `n`. There are `n` engineers numbered from `1` to `n`. `speed[i]` and `efficiency[i]` represent the speed and efficiency of the `ith` engineer respectively.

Choose **at most** `k` different engineers out of the `n` engineers to form a team with the maximum **performance**.

The performance of a team is the sum of its engineers' speeds multiplied by the minimum efficiency among its engineers.

Return *the maximum performance of this team*. Since the answer can be a huge number, return it **modulo** `109 + 7`.

### Example 1:

```
Input: n = 6, speed = [2,10,3,1,5,8], efficiency = [5,4,3,9,7,2], k = 2
Output: 60
Explanation:
We have the maximum performance of the team by selecting engineer 2 (with speed=10 and efficiency=4) and engineer 5 (with speed=5 and efficiency=7).
That is, performance = (10 + 5) * min(4, 7) = 60.
```

### Example 2:

```
Input: n = 6, speed = [2,10,3,1,5,8], efficiency = [5,4,3,9,7,2], k = 3
Output: 68
Explanation:
This is the same example as the first but k = 3. We can select engineer 1, engineer 2 and engineer 5 to get the maximum performance of the team.
That is, performance = (2 + 10 + 5) * min(5, 4, 7) = 68.
```

### Example 3:

```
Input: n = 6, speed = [2,10,3,1,5,8], efficiency = [5,4,3,9,7,2], k = 4
Output: 72
```

### Constraints:

- `1 <= k <= n <= 105`
- `speed.length == n`
- `efficiency.length == n`
- `1 <= speed[i] <= 105`
- `1 <= efficiency[i] <= 108`

