**1770. Maximum Score from Performing Multiplication Operations**

Medium

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You are given two integer arrays nums and multipliersof size n and m respectively, where n >= m. The arrays are **1-indexed**.

You begin with a score of 0. You want to perform **exactly** m operations. On the ith operation **(1-indexed)**, you will:

* Choose one integer x from **either the start or the end**of the array nums.
* Add multipliers[i] \* x to your score.
* Remove x from the array nums.

Return *the****maximum****score after performing*m *operations.*

**Example 1:**

**Input:** nums = [1,2,3], multipliers = [3,2,1]

**Output:** 14

**Explanation:** An optimal solution is as follows:

- Choose from the end, [1,2,**3**], adding 3 \* 3 = 9 to the score.

- Choose from the end, [1,**2**], adding 2 \* 2 = 4 to the score.

- Choose from the end, [**1**], adding 1 \* 1 = 1 to the score.

The total score is 9 + 4 + 1 = 14.

**Example 2:**

**Input:** nums = [-5,-3,-3,-2,7,1], multipliers = [-10,-5,3,4,6]

**Output:** 102

**Explanation:** An optimal solution is as follows:

- Choose from the start, [**-5**,-3,-3,-2,7,1], adding -5 \* -10 = 50 to the score.

- Choose from the start, [**-3**,-3,-2,7,1], adding -3 \* -5 = 15 to the score.

- Choose from the start, [**-3**,-2,7,1], adding -3 \* 3 = -9 to the score.

- Choose from the end, [-2,7,**1**], adding 1 \* 4 = 4 to the score.

- Choose from the end, [-2,**7**], adding 7 \* 6 = 42 to the score.

The total score is 50 + 15 - 9 + 4 + 42 = 102.

**Constraints:**

* n == nums.length
* m == multipliers.length
* 1 <= m <= 103
* m <= n <= 105
* -1000 <= nums[i], multipliers[i] <= 1000

Accepted

4,102

Submissions

17,076