1900. Closest Dessert Cost

Difficulty : Medium

https://leetcode.com/problems/closest-dessert-cost

You would like to make dessert and are preparing to buy the ingredients. You have `n` ice cream base flavors and `m` types of toppings to choose from. You must follow these rules when making your dessert:

- There must be **exactly one** ice cream base.
- You can add **one or more** types of topping or have no toppings at all.
- There are **at most two** of **each type** of topping.

You are given three inputs:

- `baseCosts`, an integer array of length `n`, where each `baseCosts[i]` represents the price of the i^{th} ice cream base flavor.
- `toppingCosts`, an integer array of length `m`, where each `toppingCosts[i]` is the price of **one** of the i^{th} topping.
- `target`, an integer representing your target price for dessert.

You want to make a dessert with a total cost as close to `target` as possible.

Return *the closest possible cost of the dessert to* `target`. If there are multiple, return *the* ***lower*** *one.*

Example 1:

```
Input: baseCosts = [1,7], toppingCosts = [3,4], target = 10
Output: 10
Explanation: Consider the following combination (all 0-indexed):
- Choose base 1: cost 7
- Take 1 of topping 0: cost 1 x 3 = 3
- Take 0 of topping 1: cost 0 x 4 = 0
Total: 7 + 3 + 0 = 10.
```

Example 2:

```
Input: baseCosts = [2,3], toppingCosts = [4,5,100], target = 18
Output: 17
Explanation: Consider the following combination (all 0-indexed):
- Choose base 1: cost 3
- Take 1 of topping 0: cost 1 x 4 = 4
- Take 2 of topping 1: cost 2 x 5 = 10
- Take 0 of topping 2: cost 0 x 100 = 0
Total: 3 + 4 + 10 + 0 = 17. You cannot make a dessert with a total cost of 18.
```

Example 3:

```
Input: baseCosts = [3,10], toppingCosts = [2,5], target = 9
Output: 8
Explanation: It is possible to make desserts with cost 8 and 10. Return 8 as it is the lower cost.
```

Constraints:

- `n == baseCosts.length`
- `m == toppingCosts.length`
- `1 <= n, m <= 10`
- `1 <= baseCosts[i], toppingCosts[i] <= 10^4`
- `1 <= target <= 10^4`