

5690. Closest Dessert Cost

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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  $i^{\text{th}}$  ice cream base flavor.
- `toppingCosts` , an integer array of length  $m$  , where each `toppingCosts[i]` is the price of **one** of the  $i^{\text{th}}$  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**.

User Accepted:	3
User Tried:	4
Total Accepted:	3
Total Submissions:	4
Difficulty:	Medium

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.

Example 4:

Input: baseCosts = [10], toppingCosts = [1], target = 1

Output: 10

Explanation: Notice that you don't have to have any toppings, but you must have exactly one base.

Constraints:

- $n == \text{baseCosts.length}$
- $m == \text{toppingCosts.length}$
- $1 \leq n, m \leq 10$
- $1 \leq \text{baseCosts}[i], \text{toppingCosts}[i] \leq 10^4$
- $1 \leq \text{target} \leq 10^4$