

Two Sum [Amazon Python Interview Question]

Given an list of integers called `input`, and an integer `target`, return the index of the two numbers which sum up to the target. Do not use the same list element twice.

Clarifications:

- Assume there aren't multiple valid solutions.
- In case there is no valid solution, return `[-1, -1]`.
- Return the indexes in increasing order (i.e. `[1,3]`, NOT `[3,1]`).

Example #1

Input: `input = [1, 4, 6, 10], target = 10`

Output: `[1, 2]`

Explanation: Because $4 + 6 == 10$, we return the index of elements 4 and 6, which is `[1, 2]`

Example #2

Input: `input = [1, 4, 6, 10], target = 11`

Output: `[0, 3]`

Explanation: Because $\text{input}[0] + \text{input}[3] == 11$, we return `[0, 3]`.

Example #3

Input: `input = [1, 4, 6, 10], target = 2`

Output: `[-1, -1]`

Explanation: There are no two elements we can pick that sum up to 2. Remember, you can't use the same element twice!