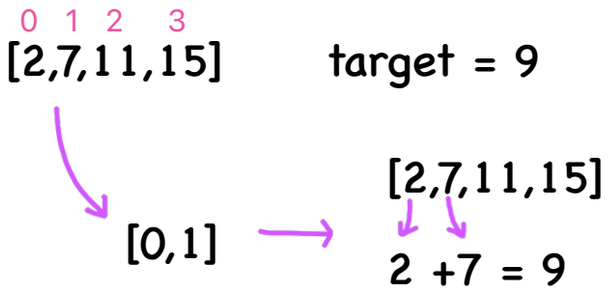
001. Two Sum



Due to the fact that we want to return the index of the numbers that together equals the target to think in a hashmap or a dictionary is the most ideal thing to check if numbers or complements are in the list

Target = 9

Number we are checking = 2

Complement (number we should have to equals traget) = 7

So we declare a set and iterate through the array, if the complement of the number we are checking is already in the dictionary we can return the index of the current number and the index array of the complement which in a dictionary it'd be its value, any other way add the current number to the dictionary and its index array

```
dict_nums = {}

for i,n in enumarte(nums):
    complement = target - n

    if complement in dict_nums:
        return [i, dict_nums[complement]]
    else:
        dict_nums[n] = i
```

[2,7,11,15] {} → complement = 9 - 2 = 7 ✗

[2,7,11,15] {2:0} → complement = 9 - 7 = 2 ✓

We iterate the array just once so time complexity is O(n)