



# STUDENT REPORT

## DETAILS

Name

VISHNUTEJA M

Roll Number

KUB23ECE037

## EXPERIMENT

Title

TARGET SUM

Description

You are given a list of integers, and your task is to write a function that finds the two numbers in the list that add up to a specific target sum. You need to return the indices of these two numbers.

Write a function that takes a list of Integers and a target sum as input and returns a list of two indices (0-based) of the numbers that add up to the target sum. Assume that there is exactly one solution, and you cannot use the same element twice

Sample Input:

2 7 11 15

9

Sample Output:

[0, 1]

Source Code:

```
def two_sum(nums, target):  
  
    index_map = {} # Dictionary to store number and its index  
  
    for index, num in enumerate(nums):  
        complement = target - num # Calculate the complement  
  
        # Check if the complement exists in the dictionary  
        if complement in index_map:  
            return [index_map[complement], index] # Return the indices  
  
        # Store the current number with its index  
        index_map[num] = index  
  
    return [] # Return an empty list if no solution is found (should not happen)  
  
# Input reading  
input_numbers = list(map(int, input().strip().split())) # Read list of integers  
target_sum = int(input().strip()) # Read target sum  
  
# Calculate and print the result  
result = two_sum(input_numbers, target_sum)  
print(result)
```

RESULT

5 / 5 Test Cases Passed | 100 %