



# STUDENT REPORT

## DETAILS

### Name

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### Roll Number

3BR23CS182

## 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):  
  
    num_to_index = {}  
    for i, num in enumerate(nums):  
        complement = target - num  
        if complement in num_to_index:  
            return [num_to_index[complement], i]  
        num_to_index[num] = i  
  
    raise ValueError("No two numbers add up to the target sum.")  
nums = list(map(int, input().split()))  
target = int(input())  
indices = two_sum(nums, target)  
print(indices)
```

## RESULT

5 / 5 Test Cases Passed | 100 %