Two Sum - hash map (one pass)

```
class Solution:
    def two_sum(self, nums: List[int], target: int) -> List[num]:

        indices = {}

        for i, num in enumerate(nums):
            diff = target - num
            if diff in indices:
                return [indices[diff], i]
            indices[num] = i

print(Solution().two_sum(nums = [3,4,5,6], target = 7))
```

Step 1:

self -> solution instance

nums -> [3,4,5,6]

target -> 7

indices -> {}

Step 2: (for i,num in enumerate (nums))

i -> 0

num -> 3

Step 3: (diff = target - num)

diff = 7 - 3 => diff -> 4

Step 4: Skip <-> if diff in indices as it is empty

Step 5: (indices [num] = i)

indices [3] = 0 => indices -> {3:0}

Step 6 : (for i, num in enumerate (nums))

i -> 1

num -> 4

Step 7: (diff = target - num)

diff = 7 - 4 => diff -> 3

Step 8: (if diff in indices) - True

Step 9: return [indices [diff] , i]

return [indices[3], 1] -> [0, 1] ✓