

### 113.SUBSET SUM PROBLEM

PROGRAM:-

```
def is_subset_sum(arr, n, target):  
    if target == 0:  
        return True  
    if n == 0 and target != 0:  
        return False  
    if arr[n-1] > target:  
        return is_subset_sum(arr, n-1, target)  
    return is_subset_sum(arr, n-1, target) or is_subset_sum(arr, n-1, target-arr[n-1])
```

```
arr = [3, 34, 4, 12, 5, 2]  
target = 9  
n = len(arr)  
if is_subset_sum(arr, n, target) == True:  
    print("Found a subset with the given sum")  
else:  
    print("No subset with the given sum")
```

OUTPUT:-

```
Found a subset with the given sum  
  
=== Code Execution Successful ===
```

TIME COMPLEXITY:- $O(2^n)$