

POWER SET

★ In this problem, we are given an array of integers and our job is to return all subarrays using bitwise operators.

We will just create a standard truth table for all indices in given array where 0 represents exclusion and 1 represents inclusion.

Eg : [1 2 3]

2 1 0

0	0	0	→	[]	0
0	0	1	→	[3]	1
0	1	0	→	[2]	2
0	1	1	→	[2, 3]	3
1	0	0	→	[1]	4
1	0	1	→	[1, 3]	5
1	1	0	→	[1, 2]	6
1	1	1	→	[1, 2, 3]	7

Pseudocode :

```
powerSet(arr, N) {  
    subsets = 1 << N  
    ans = []  
    for (i = 0 → subsets - 1) {  
        lists = []  
        for (j = 0 → N - 1) {
```

```
        if (i & (1 << j)) {  
            lists.add(arr[j])  
        }  
    }  
    ans.add(lists)  
}  
return ans  
}
```