

Our Solution(s)

Run Code

Solution 1Solution 2

```
1 // Copyright © 2020 AlgoExpert, LLC. All rights reserved.
2
3 #include <vector>
4 using namespace std;
5
6 vector<vector<int>> powersetHelper(vector<int> array, int idx);
7
8 // O(n*2^n) time | O(n*2^n) space
9 vector<vector<int>> powerset(vector<int> array) {
10     return powersetHelper(array, array.size() - 1);
11 }
12
13 vector<vector<int>> powersetHelper(vector<int> array, int idx) {
14     if (idx < 0) {
15         return vector<vector<int>>>{{}};
16     }
17     int ele = array[idx];
18     vector<vector<int>> subsets = powersetHelper(array, idx - 1);
19     int length = subsets.size();
20     for (int i = 0; i < length; i++) {
21         vector<int> currentSubset = subsets[i];
22         vector<int> newSubset = currentSubset;
23         newSubset.push_back(ele);
24         subsets.push_back(newSubset);
25     }
26     return subsets;
27 }
28
```

Our Tests

Your Solutions

Run Code

Solution 1Solution 2Solution 3

```
1 #include <vector>
2 using namespace std;
3
4 vector<vector<int>> powerset(vector<int> array) {
5     // Write your code here.
6     return {};
7 }
8
```

Custom Output

Submit Code

```

1 class Program {
2     public static void Main()
3     {
4         Console.WriteLine("Test Case 1", 100);
5         Console.WriteLine("Test Case 2", 200);
6         Console.WriteLine("Test Case 3", 300);
7         Console.WriteLine("Test Case 4", 400);
8         Console.WriteLine("Test Case 5", 500);
9         Console.WriteLine("Test Case 6", 600);
10        Console.WriteLine("Test Case 7", 700);
11        Console.WriteLine("Test Case 8", 800);
12        Console.WriteLine("Test Case 9", 900);
13        Console.WriteLine("Test Case 10", 1000);
14    }
15 }

```

Run or submit code when you're ready.