

Solution 1      Solution 2

```

1 // Copyright © 2020 AlgoExpert, LLC. All rights reserved.
2
3 using System.Collections.Generic;
4
5 public class Program {
6     // O(n*n!) time | O(n*n!) space
7     public static List<List<int> > GetPermutations(List<int> array) {
8         List<List<int> > permutations = new List<List<int> >();
9         GetPermutations(0, array, permutations);
10        return permutations;
11    }
12
13    public static void GetPermutations(int i, List<int> array, List<List<int> > permutations) {
14        if (i == array.Count - 1) {
15            permutations.Add(new List<int>(array));
16        } else {
17            for (int j = i; j < array.Count; j++) {
18                swap(array, i, j);
19                GetPermutations(i + 1, array, permutations);
20                swap(array, i, j);
21            }
22        }
23    }
24
25    public static void swap(List<int> array, int i, int j) {
26        int tmp = array[i];
27        array[i] = array[j];
28        array[j] = tmp;
29    }
30 }
31

```

Solution 1      Solution 2      Solution 3

```
1 using System.Collections.Generic;
2
3 public class Program {
4     public static List<List<int> > GetPermutations(List<int> array) {
5         // Write your code here.
6         return null;
7     }
8 }
9
```

**Run or submit code when you're ready.**