

Our Solution(s)

Run Code

Your Solutions

Run Code

Solution 1

```
1 // Copyright © 2020 AlgoExpert, LLC. All rights reserved.
2
3 using System;
4 public class Program {
5     // O(n) time | O(1) space
6     public static int[] FindThreeLargestNumbers(int[] array) {
7         int[] threeLargest = {Int32.MinValue, Int32.MinValue, Int32.MinVal
8         foreach (int num in array) {
9             updateLargest(threeLargest, num);
10        }
11        return threeLargest;
12    }
13
14    public static void updateLargest(int[] threeLargest, int num) {
15        if (num > threeLargest[2]) {
16            shiftAndUpdate(threeLargest, num, 2);
17        } else if (num > threeLargest[1]) {
18            shiftAndUpdate(threeLargest, num, 1);
19        } else if (num > threeLargest[0]) {
20            shiftAndUpdate(threeLargest, num, 0);
21        }
22    }
23
24    public static void shiftAndUpdate(int[] array, int num, int idx) {
25        for (int i = 0; i <= idx; i++) {
26            if (i == idx) {
27                array[i] = num;
28            } else {
29                array[i] = array[i + 1];
30            }
31        }
32    }
33 }
34
```

Our Tests

```
1 public class Program {
2     // ...
3     public static int[] FindThreeLargestNumbers(int[] array) {
4         // ...
5         return threeLargest;
6     }
7 }
```

Solution 1 Solution 2 Solution 3

```
1 public class Program {
2     public static int[] FindThreeLargestNumbers(int[] array) {
3         // Write your code here.
4         return null;
5     }
6 }
7
```

Custom Output

Submit Code

```
17 (Test)
18 [20000/ 1000] TestPassed: 0
19 [200/ 1] expected = [20, 40, 60]
20 [2000/ 100] expected = [200, 400, 600]
21 [20000/ 1000] expected = [2000, 4000, 6000]
22
23 expected:
24 0
25
26 (Test)
27 [20000/ 1000] TestPassed: 0
28 [200/ 1] expected = [20, 40, 60]
29 [2000/ 100] expected = [200, 400, 600]
30 [20000/ 1000] expected = [2000, 4000, 6000]
31
32 expected:
```

Run or submit code when you're ready.