

# Problem 179: Largest Number

## Problem Information

**Difficulty:** Medium

**Acceptance Rate:** 0.00%

**Paid Only:** No

## Problem Description

Given a list of non-negative integers

`nums`

, arrange them such that they form the largest number and return it.

Since the result may be very large, so you need to return a string instead of an integer.

Example 1:

Input:

`nums = [10,2]`

Output:

`"210"`

Example 2:

Input:

`nums = [3,30,34,5,9]`

Output:

"9534330"

Constraints:

1 <= nums.length <= 100

0 <= nums[i] <= 10

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## Code Snippets

### C++:

```
class Solution {
public:
    string largestNumber(vector<int>& nums) {

    }
};
```

### Java:

```
class Solution {
    public String largestNumber(int[] nums) {

    }
}
```

### Python3:

```
class Solution:
    def largestNumber(self, nums: List[int]) -> str:
```

### Python:

```
class Solution(object):
    def largestNumber(self, nums):
        """
        :type nums: List[int]
```

```
:rtype: str
"""
```

### JavaScript:

```
/**
 * @param {number[]} nums
 * @return {string}
 */
var largestNumber = function(nums) {

};
```

### TypeScript:

```
function largestNumber(nums: number[]): string {

};
```

### C#:

```
public class Solution {
    public string LargestNumber(int[] nums) {

    }
}
```

### C:

```
char* largestNumber(int* nums, int numsSize) {

}
```

### Go:

```
func largestNumber(nums []int) string {

}
```

### Kotlin:

```

class Solution {
    fun largestNumber(nums: IntArray): String {

    }
}

```

### Swift:

```

class Solution {
    func largestNumber(_ nums: [Int]) -> String {

    }
}

```

### Rust:

```

impl Solution {
    pub fn largest_number(nums: Vec<i32>) -> String {

    }
}

```

### Ruby:

```

# @param {Integer[]} nums
# @return {String}
def largest_number(nums)

end

```

### PHP:

```

class Solution {

    /**
     * @param Integer[] $nums
     * @return String
     */
    function largestNumber($nums) {

    }
}

```

### Dart:

```
class Solution {  
  String largestNumber(List<int> nums) {  
  
  }  
}
```

### Scala:

```
object Solution {  
  def largestNumber(nums: Array[Int]): String = {  
  
  }  
}
```

### Elixir:

```
defmodule Solution do  
  @spec largest_number(nums :: [integer]) :: String.t  
  def largest_number(nums) do  
  
  end  
end
```

### Erlang:

```
-spec largest_number(Nums :: [integer()]) -> unicode:unicode_binary().  
largest_number(Nums) ->  
.
```

### Racket:

```
(define/contract (largest-number nums)  
  (-> (listof exact-integer?) string?)  
)
```

## Solutions

### C++ Solution:

```

/*
 * Problem: Largest Number
 * Difficulty: Medium
 * Tags: array, string, greedy, sort
 *
 * Approach: Use two pointers or sliding window technique
 * Time Complexity: O(n) or O(n log n)
 * Space Complexity: O(1) to O(n) depending on approach
 */

class Solution {
public:
    string largestNumber(vector<int>& nums) {

    }
};

```

### Java Solution:

```

/**
 * Problem: Largest Number
 * Difficulty: Medium
 * Tags: array, string, greedy, sort
 *
 * Approach: Use two pointers or sliding window technique
 * Time Complexity: O(n) or O(n log n)
 * Space Complexity: O(1) to O(n) depending on approach
 */

class Solution {
    public String largestNumber(int[] nums) {

    }
}

```

### Python3 Solution:

```

"""
Problem: Largest Number
Difficulty: Medium
Tags: array, string, greedy, sort
"""

```

```

Approach: Use two pointers or sliding window technique
Time Complexity:  $O(n)$  or  $O(n \log n)$ 
Space Complexity:  $O(1)$  to  $O(n)$  depending on approach
"""

class Solution:
    def largestNumber(self, nums: List[int]) -> str:
        # TODO: Implement optimized solution
        pass

```

### Python Solution:

```

class Solution(object):
    def largestNumber(self, nums):
        """
        :type nums: List[int]
        :rtype: str
        """

```

### JavaScript Solution:

```

/**
 * Problem: Largest Number
 * Difficulty: Medium
 * Tags: array, string, greedy, sort
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 * Approach: Use two pointers or sliding window technique
 * Time Complexity:  $O(n)$  or  $O(n \log n)$ 
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 */

/**
 * @param {number[]} nums
 * @return {string}
 */
var largestNumber = function(nums) {

};

```

### TypeScript Solution:

```

/**
 * Problem: Largest Number
 * Difficulty: Medium
 * Tags: array, string, greedy, sort
 *
 * Approach: Use two pointers or sliding window technique
 * Time Complexity: O(n) or O(n log n)
 * Space Complexity: O(1) to O(n) depending on approach
 */

function largestNumber(nums: number[]): string {

};

```

### C# Solution:

```

/*
 * Problem: Largest Number
 * Difficulty: Medium
 * Tags: array, string, greedy, sort
 *
 * Approach: Use two pointers or sliding window technique
 * Time Complexity: O(n) or O(n log n)
 * Space Complexity: O(1) to O(n) depending on approach
 */

public class Solution {
    public string LargestNumber(int[] nums) {

    }
}

```

### C Solution:

```

/*
 * Problem: Largest Number
 * Difficulty: Medium
 * Tags: array, string, greedy, sort
 *
 * Approach: Use two pointers or sliding window technique
 * Time Complexity: O(n) or O(n log n)
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```



```
*/

char* largestNumber(int* nums, int numsSize) {

}
```

### Go Solution:

```
// Problem: Largest Number
// Difficulty: Medium
// Tags: array, string, greedy, sort
//
// Approach: Use two pointers or sliding window technique
// Time Complexity: O(n) or O(n log n)
// Space Complexity: O(1) to O(n) depending on approach

func largestNumber(nums []int) string {

}
```

### Kotlin Solution:

```
class Solution {
    fun largestNumber(nums: IntArray): String {

    }
}
```

### Swift Solution:

```
class Solution {
    func largestNumber(_ nums: [Int]) -> String {

    }
}
```

### Rust Solution:

```
// Problem: Largest Number
// Difficulty: Medium
// Tags: array, string, greedy, sort
```

```
//
// Approach: Use two pointers or sliding window technique
// Time Complexity: O(n) or O(n log n)
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impl Solution {
    pub fn largest_number(nums: Vec<i32>) -> String {

    }
}
```

### Ruby Solution:

```
# @param {Integer[]} nums
# @return {String}
def largest_number(nums)

end
```

### PHP Solution:

```
class Solution {

    /**
     * @param Integer[] $nums
     * @return String
     */
    function largestNumber($nums) {

    }
}
```

### Dart Solution:

```
class Solution {
    String largestNumber(List<int> nums) {

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### Scala Solution:

```
object Solution {  
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