

# Problem 2710: Remove Trailing Zeros From a String

## Problem Information

Difficulty: **Easy**

Acceptance Rate: 0.00%

Paid Only: No

## Problem Description

Given a

positive

integer

num

represented as a string, return

the integer

num

without trailing zeros as a string

.

Example 1:

Input:

num = "51230100"

Output:

"512301"

Explanation:

Integer "51230100" has 2 trailing zeros, we remove them and return integer "512301".

Example 2:

Input:

num = "123"

Output:

"123"

Explanation:

Integer "123" has no trailing zeros, we return integer "123".

Constraints:

$1 \leq \text{num.length} \leq 1000$

num

consists of only digits.

num

doesn't have any leading zeros.

## Code Snippets

C++:

```
class Solution {  
public:
```

```
string removeTrailingZeros(string num) {  
}  
};
```

### Java:

```
class Solution {  
    public String removeTrailingZeros(String num) {  
        }  
    }
```

### Python3:

```
class Solution:  
    def removeTrailingZeros(self, num: str) -> str:
```

### Python:

```
class Solution(object):  
    def removeTrailingZeros(self, num):  
        """  
        :type num: str  
        :rtype: str  
        """
```

### JavaScript:

```
/**  
 * @param {string} num  
 * @return {string}  
 */  
var removeTrailingZeros = function(num) {  
};
```

### TypeScript:

```
function removeTrailingZeros(num: string): string {  
};
```

**C#:**

```
public class Solution {  
    public string RemoveTrailingZeros(string num) {  
        }  
        }  
}
```

**C:**

```
char* removeTrailingZeros(char* num) {  
    }  
}
```

**Go:**

```
func removeTrailingZeros(num string) string {  
    }  
}
```

**Kotlin:**

```
class Solution {  
    fun removeTrailingZeros(num: String): String {  
        }  
        }  
}
```

**Swift:**

```
class Solution {  
    func removeTrailingZeros(_ num: String) -> String {  
        }  
        }  
}
```

**Rust:**

```
impl Solution {  
    pub fn remove_trailing_zeros(num: String) -> String {  
        }  
        }  
}
```

**Ruby:**

```
# @param {String} num
# @return {String}
def remove_trailing_zeros(num)

end
```

**PHP:**

```
class Solution {

    /**
     * @param String $num
     * @return String
     */
    function removeTrailingZeros($num) {

    }
}
```

**Dart:**

```
class Solution {
  String removeTrailingZeros(String num) {
    }
}
```

**Scala:**

```
object Solution {
  def removeTrailingZeros(num: String): String = {
    }
}
```

**Elixir:**

```
defmodule Solution do
  @spec remove_trailing_zeros(num :: String.t) :: String.t
  def remove_trailing_zeros(num) do
```

```
end  
end
```

### Erlang:

```
-spec remove_trailing_zeros(Num :: unicode:unicode_binary()) ->  
unicode:unicode_binary().  
remove_trailing_zeros(Num) ->  
.
```

### Racket:

```
(define/contract (remove-trailing-zeros num)  
(-> string? string?)  
)
```

## Solutions

### C++ Solution:

```
/*  
* Problem: Remove Trailing Zeros From a String  
* Difficulty: Easy  
* Tags: string  
*  
* Approach: String manipulation with hash map or two pointers  
* Time Complexity: O(n) or O(n log n)  
* Space Complexity: O(1) to O(n) depending on approach  
*/  
  
class Solution {  
public:  
    string removeTrailingZeros(string num) {  
  
    }  
};
```

### Java Solution:

```

/**
 * Problem: Remove Trailing Zeros From a String
 * Difficulty: Easy
 * Tags: string
 *
 * Approach: String manipulation with hash map or two pointers
 * Time Complexity: O(n) or O(n log n)
 * Space Complexity: O(1) to O(n) depending on approach
 */

class Solution {
    public String removeTrailingZeros(String num) {
        return num;
    }
}

```

### Python3 Solution:

```

"""
Problem: Remove Trailing Zeros From a String
Difficulty: Easy
Tags: string

Approach: String manipulation with hash map or two pointers
Time Complexity: O(n) or O(n log n)
Space Complexity: O(1) to O(n) depending on approach
"""

class Solution:
    def removeTrailingZeros(self, num: str) -> str:
        # TODO: Implement optimized solution
        pass

```

### Python Solution:

```

class Solution(object):
    def removeTrailingZeros(self, num):
        """
:type num: str
:rtype: str
"""

```

### JavaScript Solution:

```
/**  
 * Problem: Remove Trailing Zeros From a String  
 * Difficulty: Easy  
 * Tags: string  
  
 * Approach: String manipulation with hash map or two pointers  
 * Time Complexity: O(n) or O(n log n)  
 * Space Complexity: O(1) to O(n) depending on approach  
 */  
  
/**  
 * @param {string} num  
 * @return {string}  
 */  
var removeTrailingZeros = function(num) {  
  
};
```

### TypeScript Solution:

```
/**  
 * Problem: Remove Trailing Zeros From a String  
 * Difficulty: Easy  
 * Tags: string  
  
 * Approach: String manipulation with hash map or two pointers  
 * Time Complexity: O(n) or O(n log n)  
 * Space Complexity: O(1) to O(n) depending on approach  
 */  
  
function removeTrailingZeros(num: string): string {  
  
};
```

### C# Solution:

```
/*  
 * Problem: Remove Trailing Zeros From a String  
 * Difficulty: Easy  
 * Tags: string  
 */
```

```

* Approach: String manipulation with hash map or two pointers
* Time Complexity: O(n) or O(n log n)
* Space Complexity: O(1) to O(n) depending on approach
*/
public class Solution {
    public string RemoveTrailingZeros(string num) {
        }
    }
}

```

### C Solution:

```

/*
 * Problem: Remove Trailing Zeros From a String
 * Difficulty: Easy
 * Tags: string
 *
 * Approach: String manipulation with hash map or two pointers
 * Time Complexity: O(n) or O(n log n)
 * Space Complexity: O(1) to O(n) depending on approach
*/
char* removeTrailingZeros(char* num) {
}

```

### Go Solution:

```

// Problem: Remove Trailing Zeros From a String
// Difficulty: Easy
// Tags: string
//
// Approach: String manipulation with hash map or two pointers
// Time Complexity: O(n) or O(n log n)
// Space Complexity: O(1) to O(n) depending on approach

func removeTrailingZeros(num string) string {
}

```

### Kotlin Solution:

```
class Solution {  
    fun removeTrailingZeros(num: String): String {  
  
    }  
}
```

### Swift Solution:

```
class Solution {  
    func removeTrailingZeros(_ num: String) -> String {  
  
    }  
}
```

### Rust Solution:

```
// Problem: Remove Trailing Zeros From a String  
// Difficulty: Easy  
// Tags: string  
//  
// Approach: String manipulation with hash map or two pointers  
// Time Complexity: O(n) or O(n log n)  
// Space Complexity: O(1) to O(n) depending on approach  
  
impl Solution {  
    pub fn remove_trailing_zeros(num: String) -> String {  
  
    }  
}
```

### Ruby Solution:

```
# @param {String} num  
# @return {String}  
def remove_trailing_zeros(num)  
  
end
```

### PHP Solution:

```
class Solution {  
  
    /**  
     * @param String $num  
     * @return String  
     */  
    function removeTrailingZeros($num) {  
  
    }  
}
```

### Dart Solution:

```
class Solution {  
String removeTrailingZeros(String num) {  
  
}  
}
```

### Scala Solution:

```
object Solution {  
def removeTrailingZeros(num: String): String = {  
  
}  
}
```

### Elixir Solution:

```
defmodule Solution do  
@spec remove_trailing_zeros(num :: String.t) :: String.t  
def remove_trailing_zeros(num) do  
  
end  
end
```

### Erlang Solution:

```
-spec remove_trailing_zeros(Num :: unicode:unicode_binary()) ->  
unicode:unicode_binary().  
remove_trailing_zeros(Num) ->  
.
```

**Racket Solution:**

```
(define/contract (remove-trailing-zeros num)
  (-> string? string?))
)
```