

132.

Write a program that takes an input list of n numbers and creates a new list containing only the unique elements from the original list. What is the space complexity of the algorithm?

Test Cases

Some Duplicate Elements

Input: [3, 7, 3, 5, 2, 5, 9, 2]

Expected Output: [3, 7, 5, 2, 9] (Order may vary based on the algorithm used)

Negative and Positive Numbers

Input: [-1, 2, -1, 3, 2, -2]

Expected Output: [-1, 2, 3, -2] (Order may vary)

List with Large Numbers

Input: [1000000, 999999, 1000000]

Expected Output: [1000000, 999999]

AIM: To Remove the duplicates from an array

PROGRAM:

```
def find_unique_elements(nums):
```

```
    unique_elements = list(set(nums))
```

```
    return unique_elements
```

```
input1 = [3, 7, 3, 5, 2, 5, 9, 2]
```

```
print(find_unique_elements(input1))
```

```
input2 = [-1, 2, -1, 3, 2, -2]
```

```
print(find_unique_elements(input2))
```

```
input3 = [1000000, 999999, 1000000]
```

```
print(find_unique_elements(input3))
```

```
[2, 3, 5, 7, 9]
[2, 3, -1, -2]
[1000000, 999999]
```

OUTPUT:

TIME COMPLEXITY:  $O(n)$