Pseudo-code: Search for the Largest Number in a Given List

Algorithm 1 searchLargest

1: **Input:** A list of numbers.
2: **Output:** The largest number in the list.
3: **Intuition:**

- Initialize a variable `largestNum` to negative infinity.
- For each number in the list:
  - If `largestNum` is less than the current number, update `largestNum` to be the current number.
- Return `largestNum`.

4: **Time Complexity:** $O(n)$, where n is the number of elements in the list, since each element is visited once.

Algorithm 2 searchLargest

```
1: function SEARCHLARGEST(list)
2:     initialize largestNum to negative infinity
3:     for each number in list do
4:         if number > largestNum then
5:             largestNum = number
6:         end if
7:     end for
8:     return largestNum
9: end function
```

Testing

- **Input:** {3, 7, 1, 8, 9, 2, 10, 3, 7, 11, 2}
- **Output:** 11 (since it is the largest number in the input)