Problem Domain

- Given a list of values, return the maximum value.

input: ['1', '4', '7']

output: 7

max - 1 > 4 = 4
4 > 7 =
7 > 4 = 7

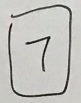
Edgecase
- empty array.
- 1

Algorithm

Given array of values
push each value onto Stack.
Determine max value in stack
Pop first two values
find the max and
push max value on top of stack.

val1 = 7
val2 = 1

7 > 2



Big O(n)
time: O(2n)
Space: O(n)

Code

```
def get_max(array):
    in_stack = Stack(LinkedList)

    for val in range(len(array)):
        in_stack.push(array, [val])
    val1 = 0
    val2 = 0
    while in_stack.peek():
        val1 = in_stack.pop()
        val2 = in_stack.pop()
        if val1 > val2:
            in_stack.push(val1)
        else:
            in_stack.push(val2)
        if in_stack.last():
            return in_stack.pop()

    return None
```