


Longest Valid Parenthesis:-

↓
s: [(()) ()
0 1 2 3 4 5
↑

maxlen = ~~2~~ 4 ~~6~~

if s[i] == '(':
stack.append(i)
else:
stack.pop() ×
if len(stack) == 0:
× ×

else:

maxlen = max(maxlen, i - stack[-1])



```
if s[i] == 'C':
    stack.append(i)
```

else:

`stack.pop()` ✓

if $\text{len}(s) = 0$:

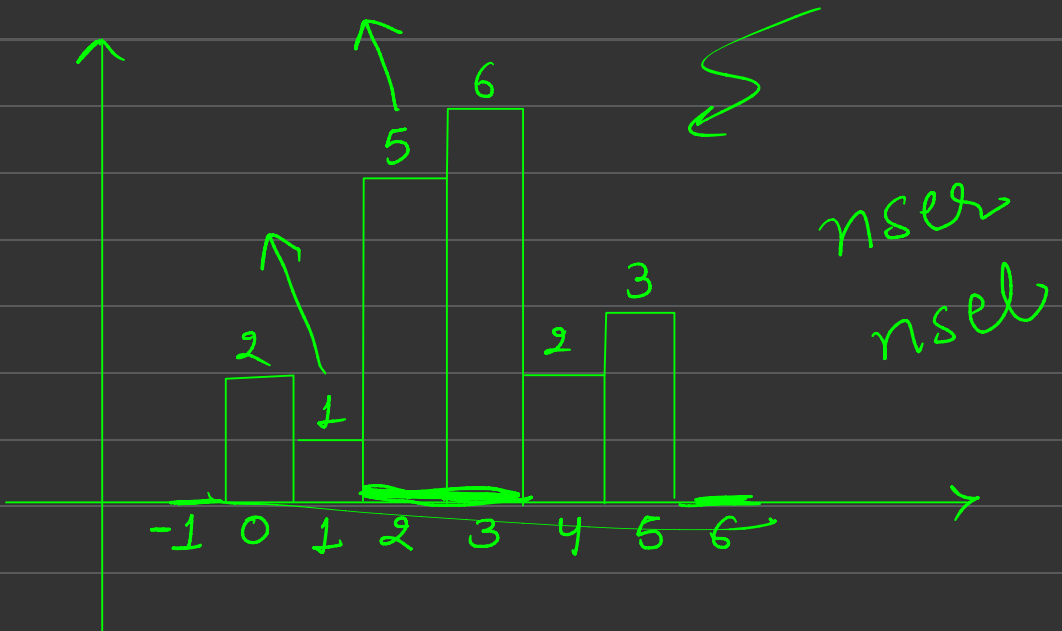
```
stack.append(i)
```

Diagram illustrating a stack structure with elements $($, $($, $)$ and an empty slot 4 . The stack is represented by a horizontal array of slots indexed 0 to 5. The elements are stored in slots 1, 2, and 3. The stack is bounded by arrows pointing to the start (index 0) and end (index 5) of the array, with a circled 5 below the end arrow.

$WC - WS: P!$

$$5 - 0 + 1$$

2	1	5	6	2	3
---	---	---	---	---	---



⑤: left: 1, right: 4

$$\underline{4-1-1} = \textcircled{2} = 10$$

①: left: -1, right: 6

$$6 - (-1) - 1 \Rightarrow 6 \leq 6$$

-1 0 1 2 3 4 5 6
 (2) (1) (5) 6 2 3 ↑

~~near~~ 1 6 4 4 6 6

~~near~~ -1 -1 1 2 1 4

(1) (6) (2)

2 6 10
 near - near - ↑

[] near heights

[] [] [] [] []

mm

()
 2 ()

mm
 mm

[] near (heights)