(() () ((

- Iterate over string and remove
  those valid pairs.

=> (. . . . ((

- The remaing are invalid ones.

  So the output is longest consecutive dots.

  0 1 2 3 4 5 6
  (() () ((
  (. . . . ((

$(|))$

```
const fn = (s) => {
    const stack = [-1];
    for( let i=0; i < s.length; i++) {
        if ( s[i] === '(') {
            stack.push(i);
        } else {
            if( stack.length && s[stack[stack.length-1]] === '(') {
                stack.pop();
            } else {
                stack.push(i);
            }
        }
    }
    stack.push(s.length);
    let output = 0;
    for( let i=0; i < stack.length-1; i++) {
        output = Math.max(output, stack[i+1] - stack[i]);
    }
    return output;
}
```

```
0 1 2 3 4 5 6 7 8 9 10 11 12
( | )( )( ))) )( )(
```

$[9, 12]$

$[-1, 9, 12]$

$(()$
$-1\ 0\ 1\ 2\ 3$

$j - i - 1$