Longest Valid Parenthesis:

package dsa;

import java.util.Stack;

public class LongestValidParentheses {

public int longestValidParentheses(String s) {

int maxLength = 0;

Stack<Integer> stack = new Stack<>();

stack.push(-1);

for (int i = 0; i < s.length(); i++) {

char charAtIndex = s.charAt(i);

if (charAtIndex == '(') {

stack.push(i);

} else {

stack.pop();

if (stack.isEmpty()) {

stack.push(i);

} else {

maxLength = Math.max(maxLength, i - stack.peek());

}

}

}

return maxLength;

}

}