Given the following data:

Input for the string stacks/queues/deques

Eric, Jennifer, JoAnn, Mark, Alan, Rick

Input for the double stacks/queues/deques

44.44, 888.55, 88.88, 123.123, 8.445, 983.3, 1.2

1. Implement and print (top of stack to bottom) the stacks using the STL <stack> with the above data.
2. Delete Alan and 123.123 from the above stacks (you will need to delete others) using the STL <stack> and print (top of stack to bottom) the remaining elements in the stacks.
3. Implement and print (top of stack to bottom) the stacks using a singly linked list using the above data. Do not use the STL.
4. Delete Alan and 123.123 from the above stacks (you will need to delete others) and print (top of stack to bottom) the remaining elements in the stacks. Do not use the STL.
5. Implement and print the queues using either a circular array or a linked list using the above data. Do not use the STL.
6. Delete Alan and 123.123 from the above queues (you will need to delete others) and print the remaining elements in the queues. Do not use the STL.
7. Implement and print the deques using a linked list using the above data. Do not use the STL.
8. Delete Alan (pop front) and 123.123 (pop back) from the above deques (you will need to delete others) and print the remaining elements in the deques. Do not use the STL.

All in one execution.

1. Implement the Parentheses Algorithm without using the STL). Test your algorithm with the following mathematical statements.
2. (extra credit – 3 points) If valid, write software to evaluate the expressions assuming x = -3.

(2x - 8) (12x + 6)

{2x + 5} (6x+4)}

(((4x+8) - x[4x+3])))

[(5x - 5) - 4x[6x + 2]]

{{8x+5) - 5x[9x+3]})

{(8x+5) - 6x[9x+3]]

(12x + 6} (2x - 4)

Your output should CLEARLY demonstrate the above. Print out the part number before you display the stacks/queues/deques.

Due September 13th

Submit your assignment in a folder.