Sean Kunz
CS 571 Assignment #2
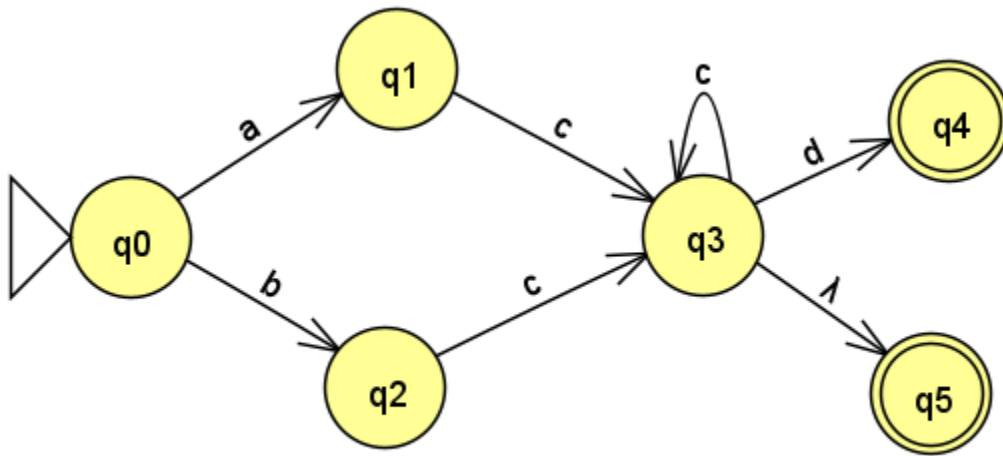
1. Draw an automaton that accepts the regular expression $(a|b)(c^+d?)$

2a. Draw the symbol table for the following C program at point 1 using static scoping.

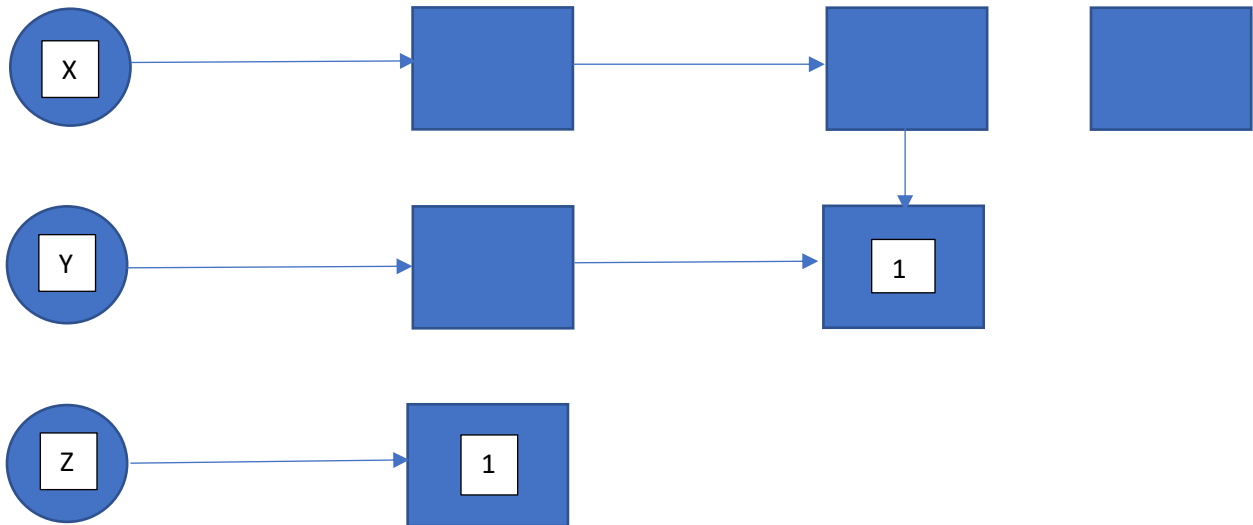| a	int, global	
b	int, local to q()	int, global
p	function	
q	function	
print	function	

2b. What does the program print using static scoping?

4
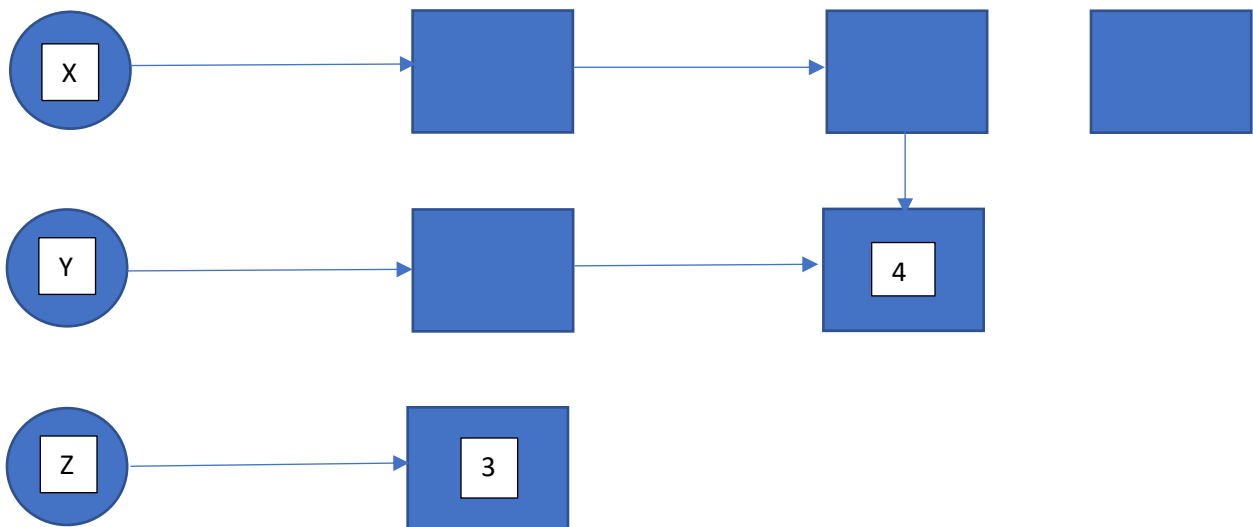3

2c. What does the program print using dynamic scoping?

4
5

3. Draw box-and-circle diagrams of variables after each of the two assignments to **x (Lines 11 and 15) . What does the program print?

Line 11 (next page):

Line 15:

Prints:

1
1
3

4a. Give the output of the following program using call-by-reference.

1, 2, 1, 0
2, 0, 0

4b. Give the output of the following program using call-by-name.

0 2 1 2
0 1 2