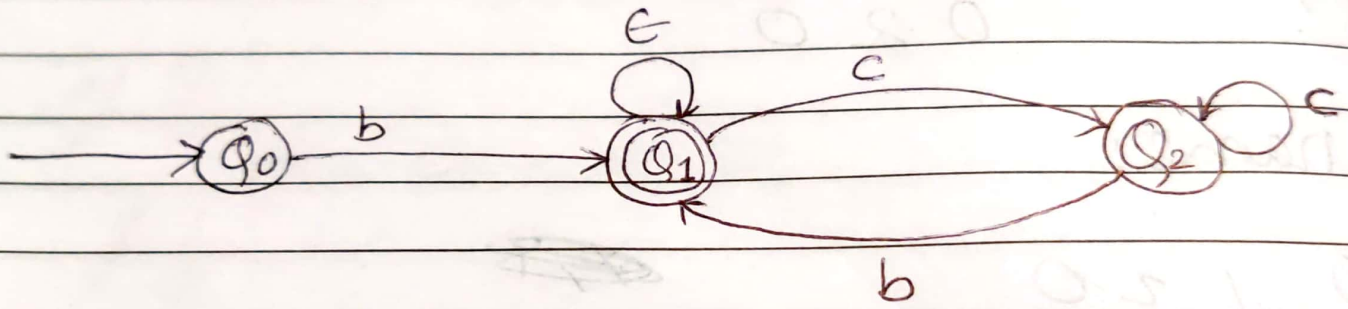
1] The Regular expression that describes L is

~~a+b~~ $(a^+b?)^+$

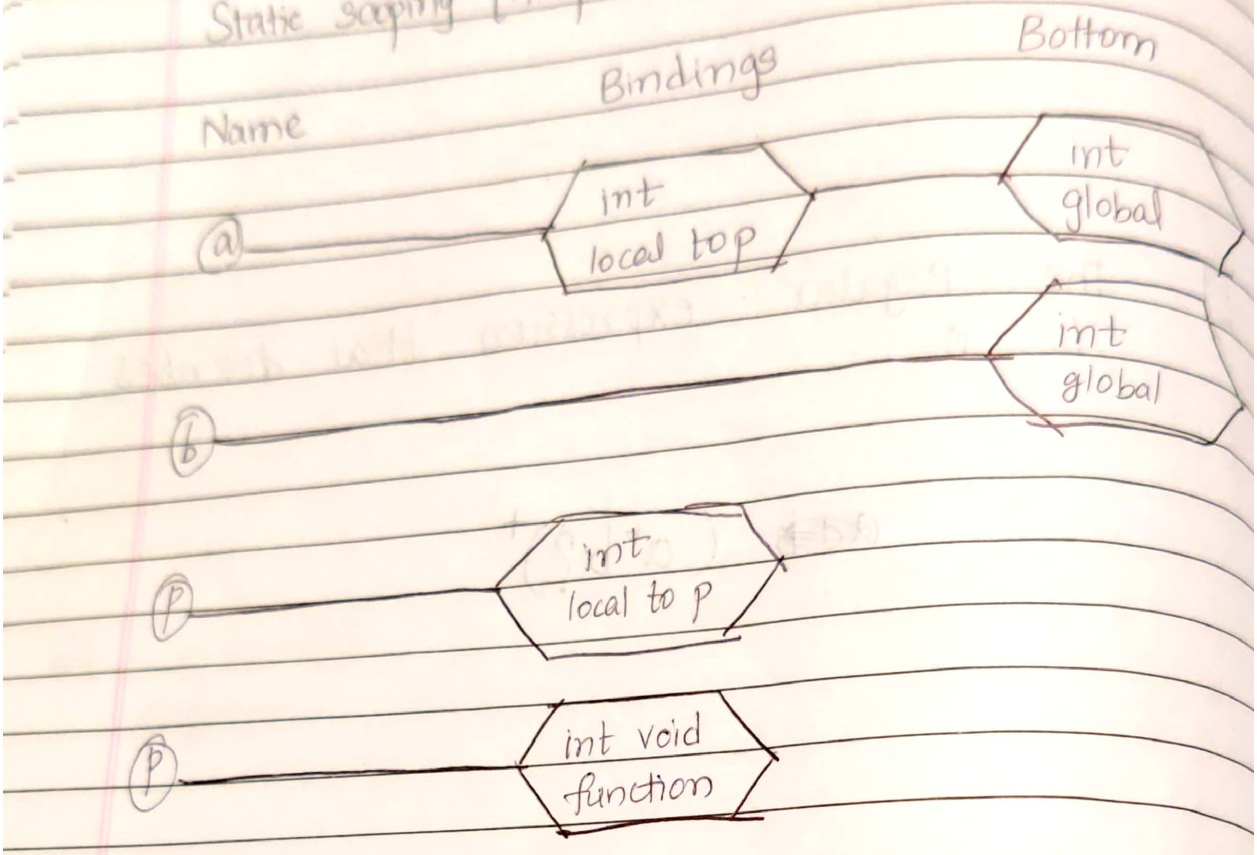
2) Automaton that accepts regular expression $b(c+b)^*$



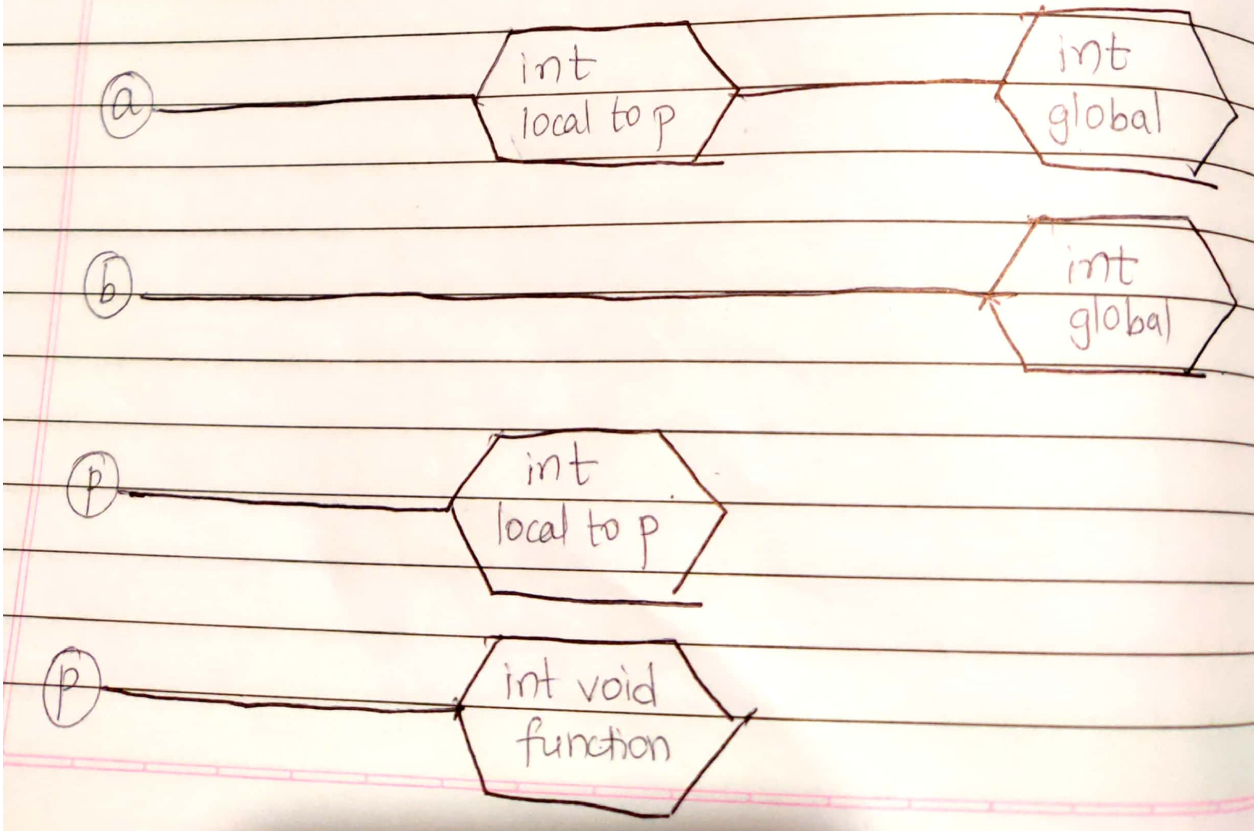
3]

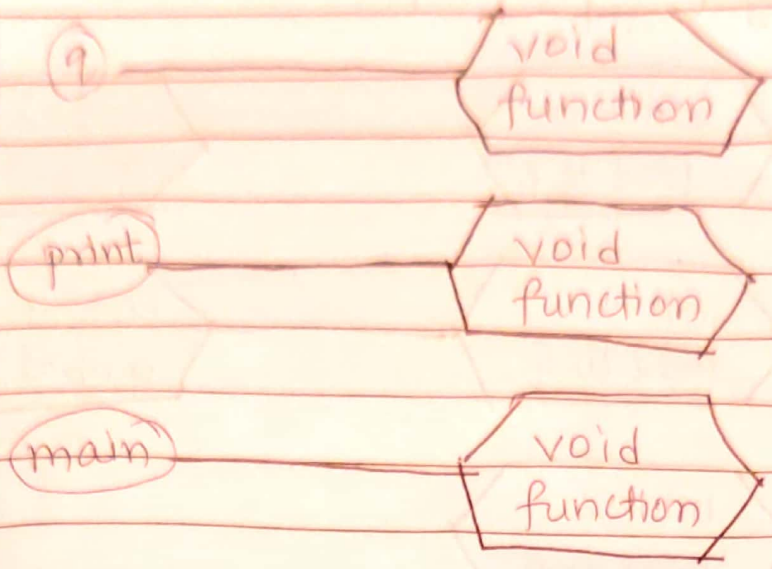
Symbol table at point 1

Static scoping [At point 1]

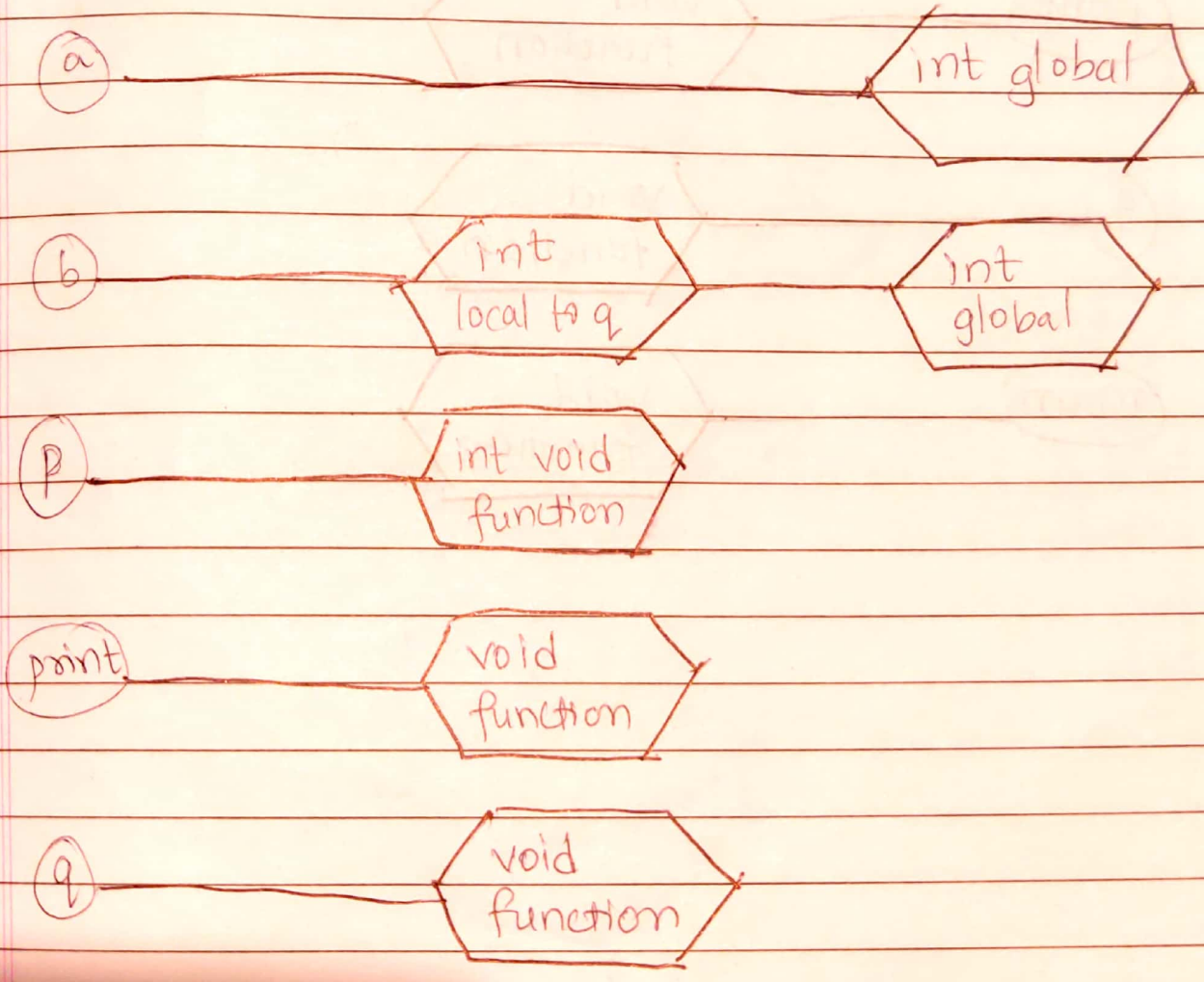


Dynamic scoping [At point 1]

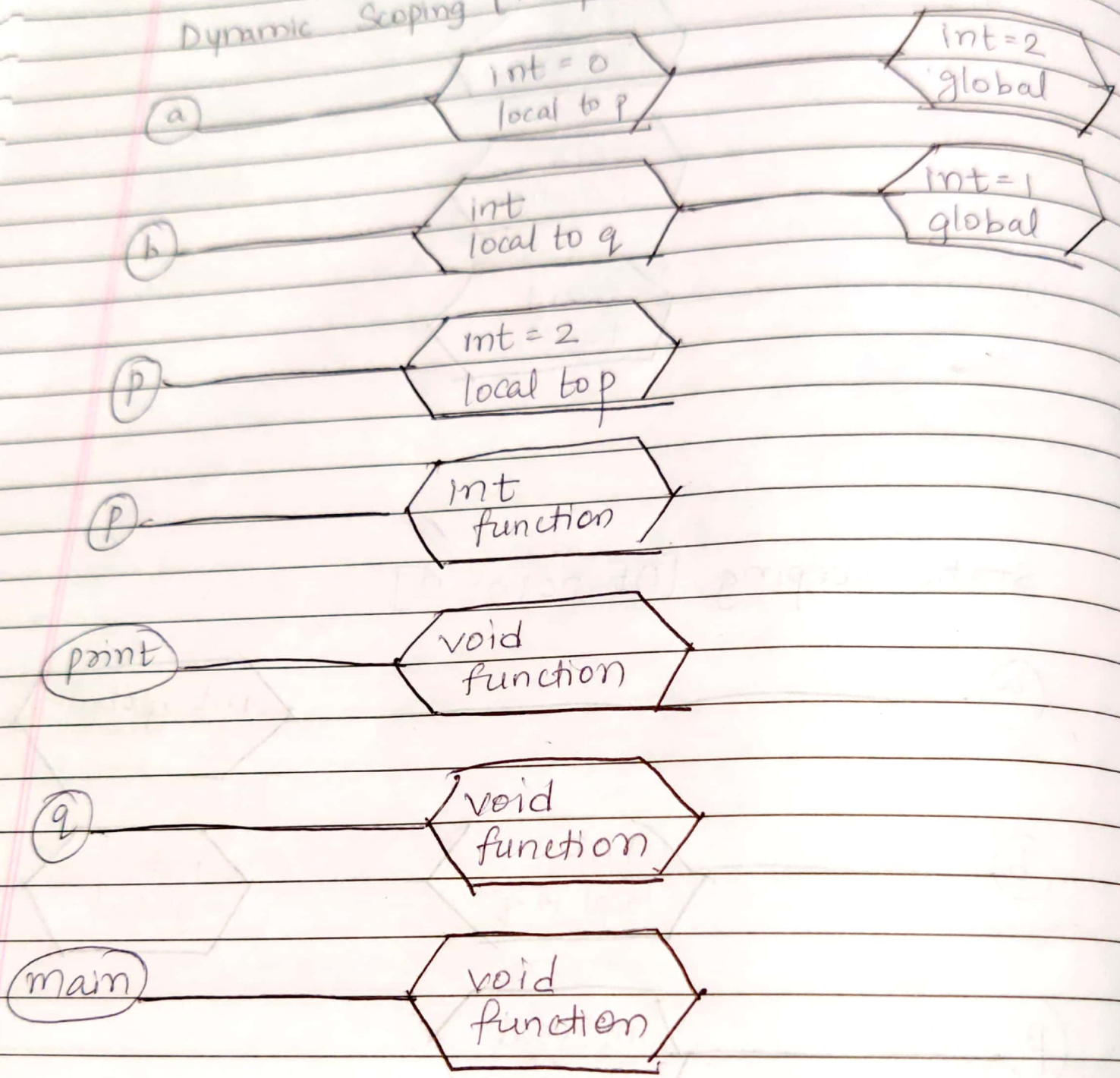




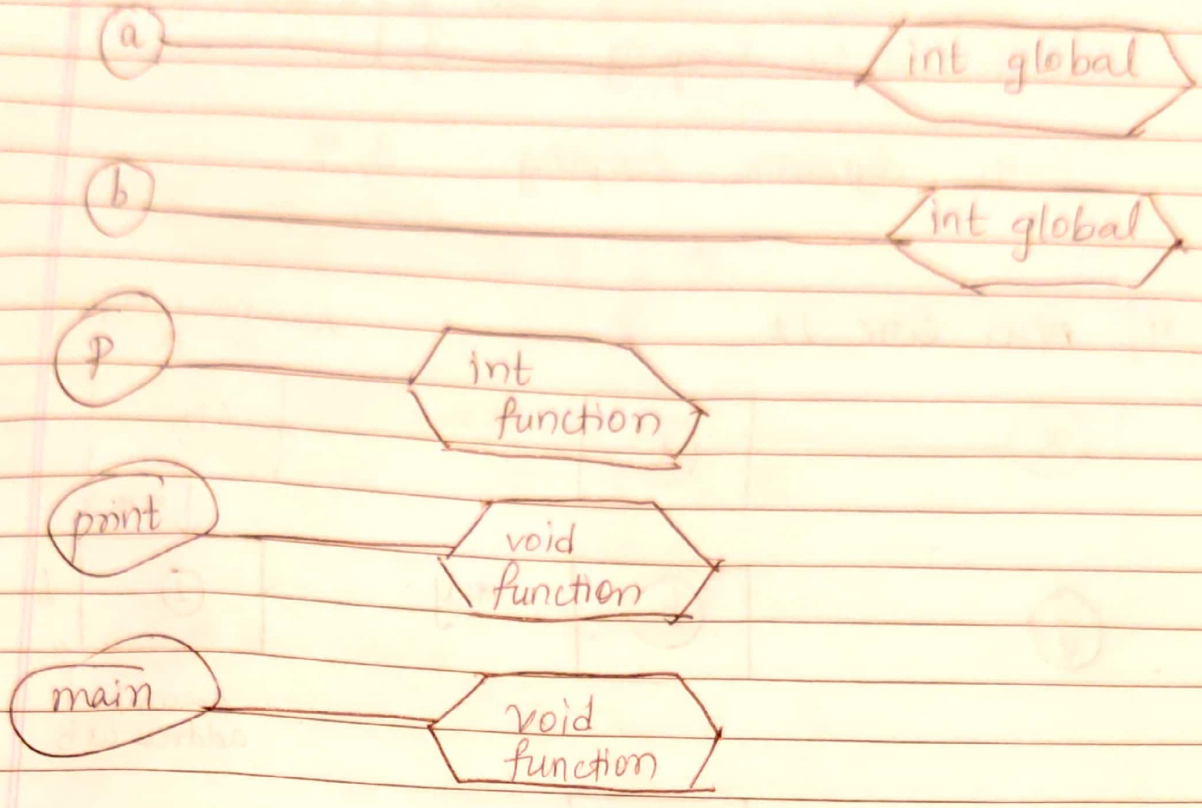
Static scoping [At point 2]



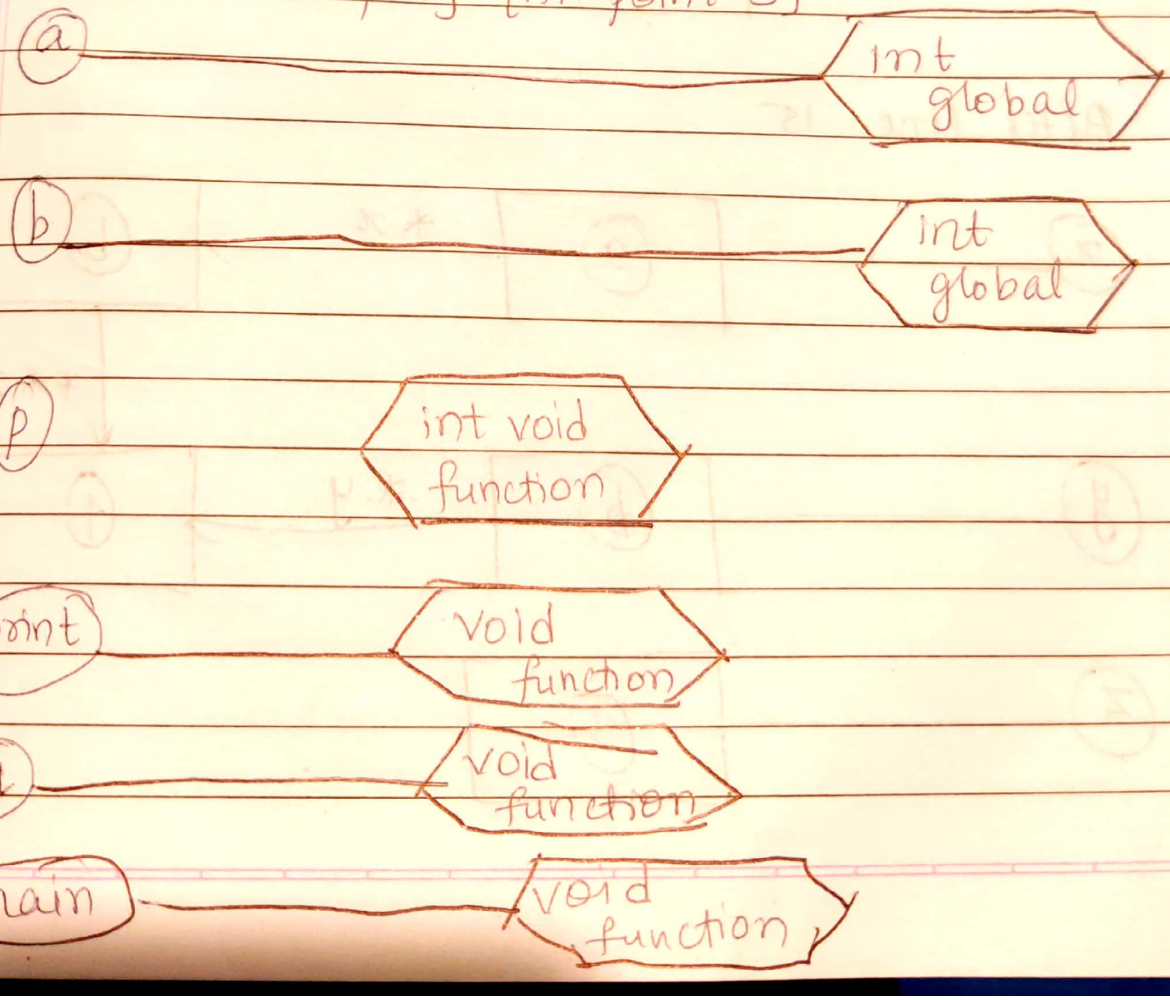
Dynamic Scoping [At point 2]



Static Scoping [At point 3]



Dynamic Scoping [At point 3]

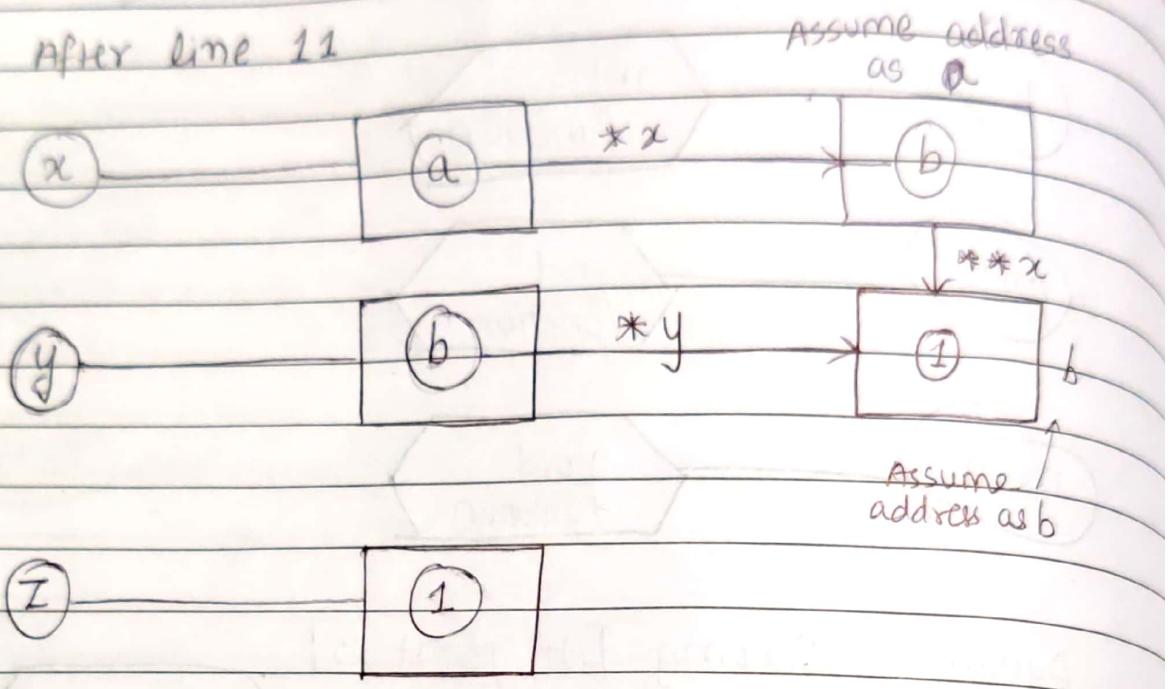


Output:

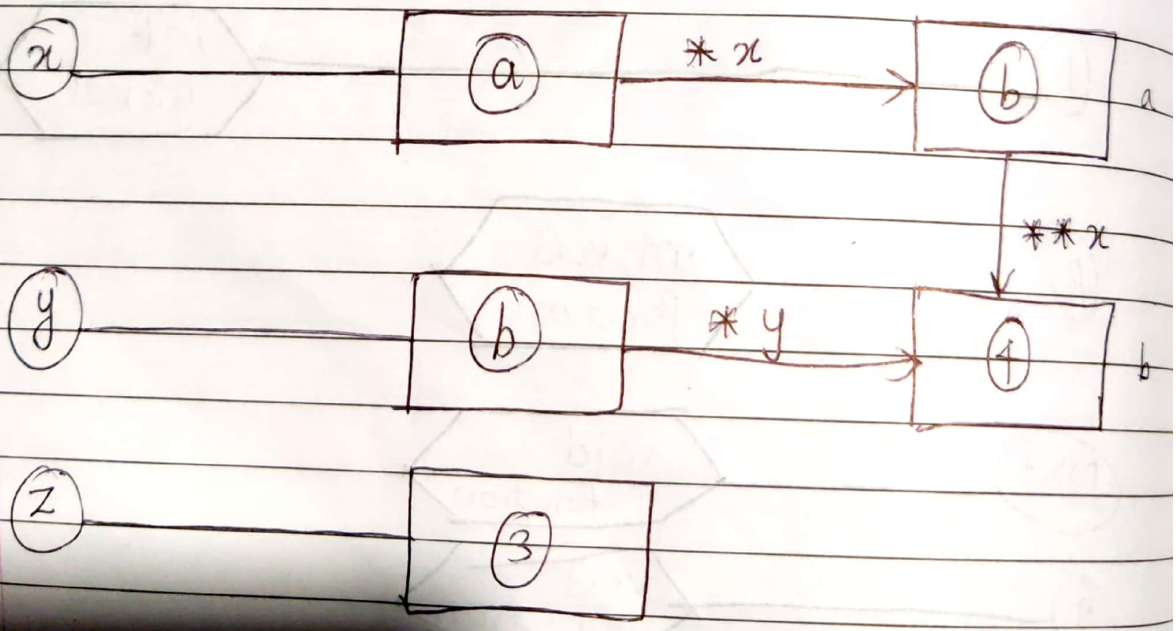
With Static Scoping - 3, 1

With dynamic scoping - 3, 4

4] After line 11



After line 15



Output of program - 1, 1, 3
*y and ***x are aliases of each other

5)

Call by value:
Output: 1 2 1 0
2 1 0

Call by Reference:
Output: 1 2 1 0
2 0 0

Call by Name:
Output: 0 2 1 2
0 1 2