

ACSL

2013 - 2014

American Computer Science League

Contest #4

Intermediate Division

1. Data Structures

How many nodes have only one child in the binary search tree for
DENVERBRONCOS

1.

2. Data Structures

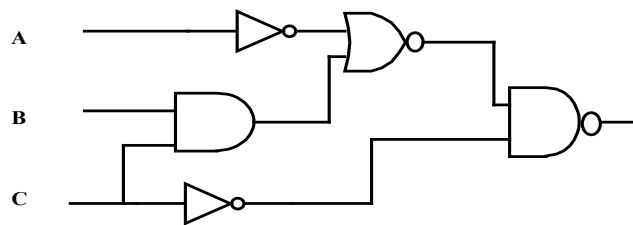
What would the next popped element be in the following queue?

**PUSH(P), PUSH(I), PUSH(K), POP(X), POP(X), PUSH(E),
PUSH(S), PUSH(P), POP(X), POP(X), PUSH(E), POP(X),
PUSH(A), PUSH(K)**

2.

3. Digital Electronics

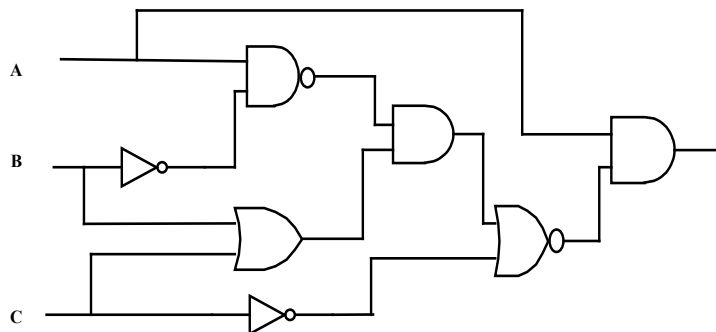
What ordered triple(s) make the following circuit FALSE?



3.

4. Digital Electronics

Simplify the Boolean expression represented by the circuit below.



4.

5. LISP

Evaluate

(CAR (CDR (CDR '(1 (2) (3 (4))))))

5.