**ACSL**

**American Computer Science League**

**2013 - 2014**

#### Contest #2

### Senior Division

# 1. Prefix/Infix/Postfix

Evaluate the following prefix expression if A = 8, B = 4, C = 2,

and D = 6.

* + A B \* / \* C ↑ D C A B



1. **Prefix/Infix/Postfix**

Convert the following infix expression into a postfix expression.

+

1. **Bit-String Flicking**

Evaluate the following expression:

(RSHIFT-2 (LCIRC-1 01011)) OR (NOT(LSHIFT-1(RCIRC-3 10110))))

**4. Bit-String Flicking**

Solve for X (5-bits) in the following equation:

(RCIRC-2 (LSHIFT-1 X)) = 10111

1. **LISP**

Evaluate the following LISP expression:

( MULT ( ADD ( SUB 10 2 ) 3 ) ( EXP 2 4 ))