

2013 - 2014	ACSL American Computer Science League	Contest #2
Intermediate Division		

1. Prefix/Infix/Postfix

Convert this infix expression into a postfix expression.

$$\frac{A^2 (B + C)}{A - C} + \frac{A + B}{C^2}$$

2. Prefix/Infix/Postfix

Evaluate this following prefix expression. All numbers are single digits.

$$+ + / * 3 \uparrow + 2 8 2 \uparrow 5 2 4 / * 6 8 * 4 3$$

3. Bit-String Flicking

Evaluate the following expression:

$$(\text{NOT} (10010 \text{ OR } \text{NOT } 10011 \text{ AND } 11011))$$

4. Bit-String Flicking

Evaluate the following expression:

$$((\text{LSHIFT} - 2 \ 01101) \text{ OR } 01011 \text{ AND } (\text{RCIRC} - 3 \ 11011))$$

5. LISP

Evaluate the following LISP expression:

$$(\text{ADD} (\text{MULT } 2 \ 5) (\text{EXP } 3 \ 2) (\text{SUB } 4 (\text{DIV } 6 \ 2)))$$