**ACSL**

**American Computer Science League**

#### Contest #2

**2015- 2016**

### Intermediate Division

# 1. Prefix/Infix/Postfix

Convert this infix expression (Heron’s formula for the area of a

triangle) into a prefix expression.

**(s** **\* (s – a) \* (s – b) \* (s – c))1/2**



1. **LISP**

Evaluate the following LISP expression:

**(MULT (ADD 2 3 1 (EXP 3 2)) (SUB (MULT 4 2) (DIV 10 2)))**

**4. Bit-String Flicking**

Evaluate the following expression:

**(LCIRC-2(RSHIFT-1 01101))**

**AND ((RCIRC-1 01100) OR (NOT 01101))**

**3. Bit-String Flicking**

Evaluate the following expression:

**(LSHIFT-1 (RCIRC-2 (RSHIFT-1 (LCIRC-3 01101))))**

1. **Prefix/Infix/Postfix**

Evaluate the following postfix expression:

(Note: all numbers are single digits)

**2 3 2 ↑ − 4 8 2 / 1 + \* 2 / + 2 3 \* 6 / +**