**ACSL**

**American Computer Science League**

#### Contest #2

**2015 - 2016**

### Junior Division

# 1. Prefix/Infix/Postfix

Evaluate the following postfix expression if a = 12, b = 2, c = 3:

**a b / a b c ↑ \* + a b c \* a − \* a / −**







1. **Prefix/Infix/Postfix**

Convert the infix expression to a prefix expression.

−

1. **What Does This Program Do?**

What numbers are printed after the following program is executed?

C = 0: S = 0

FOR I = 1 TO 50

IF I/2 = INT(I/2) THEN C = C + 1 ELSE S = S + 1

NEXT I

FOR K = 1 TO 50

IF (K/3 = INT(K/3)) AND (K/2 <> INT(K/2))

THEN C = C + 1 ELSE S = S + 1

NEXT K

FOR J = 1 TO 50 STEP 2

IF (J/5 = INT(J/5)) AND (J/3 <> INT(J/3))

THEN C = C + 1 ELSE S =S + 1

NEXT J

PRINT C, S

END

**3. Bit-String Flicking**

## Evaluate the following:

**01101 OR (NOT 10111) AND 10010**

**4. Bit-String Flicking**

Evaluate the following:

**(LCIRC-2 01110) OR ((NOT 10110) AND (RSHIFT-1 01110))**