

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

1. Prefix/Infix/Postfix $3 \ 1 \ 4 + 2 \uparrow * \ 6 \ 2 / 3 * - = 3 \ (\ 1 \ 4 +) \ 2 \uparrow * \ (\ 6 \ 2 /) \ 3 * -$ $= 3 \ (\ 5 \ 2 \uparrow) * \ (\ 3 \ 3 *) -$ $= (\ 3 \ 25 *) \ 9 - = 75 \ 9 - = 66$	1. 66
2. Prefix/Infix/Postfix $\frac{A^2(B+C)}{BC} = ((A^2)*(B+C))/(B*C)$ $= / * \uparrow A \ 2 + B \ C * B \ C$	2. / * \uparrow A 2 + B C * B C
3. Bit-String Flicking 00101 OR NOT 10101 AND 10010 = 00101 OR (01010 AND 10010) = 00101 OR 00010 = 00111	3. 00111
4. Bit-String Flicking (LCIRC – 2 (RSHIFT – 1 (NOT 01101))) = (LCIRC – 2 (RSHIFT – 1 10010)) = (LCIRC – 2 01001) = 00101	4. 00101
5. What Does This Program Do? This program counts the number of times 2, 3, 4, and 5 are factors of the first 25 counting numbers. 2 is a factor 12 times, 3 is a factor 8 times, 4 is a factor 6 times, and 5 is a factor 5 times. The sum is 31.	5. 31