American Computer Science League

2020-2021 • Contest 2: Shorts • Junior Division

1. Prefix-Infix-Postfix	A 2
Evaluate the following prefix expression if all numbers are single digits:	A2 B. 6
	C. 12
+-/*362/+394^23	D. 14 E. 17
2. Prefix-Infix-Postfix	D. 17
2. Trenx-innx-i ostnx	A. A2^B+/CAB*C*+
Convert this infix expression to postfix:	B. A2^B+C/AB*C*+
A^2+B	C. A2^B+C/A*BC*+ D. A2B^+C/AB*C*+
$\frac{A^2 + B}{C} + ABC$	E. A2^B+C/ABC**+
3. Bit-String Flicking	A. 01011
Evaluate the following expression:	B. 00101
	C. 11011
(01011 OR (NOT 10010) AND 00011)	D. 00011 E. 01010
4. Bit-String Flicking	
	A. 11000
Evaluate the following expression:	B. 00111 C. 10100
(NOT (RSHIFT-2 (LCIRC-2 10011)))	D. 11001
	E. 11100
5. What Does This Program Do? (Loops)	A. 15
What is the final value of c when this program is executed?	B. 17
	C. 19
c = 0 for $i = 1$ to 50	D. 21 E. 23
if i % $4 == 3$ then $c = c + 1$	E. 23
$ \text{next i} \\ \text{for i} = 2 \text{ to } 50 \text{ stan } 2 $	
for $j = 2$ to 50 step 2 if $j \% 6 == 0 \&\& j \% 4 != 0$ then $c = c + 1$	
if j % 7 == 0 then $c = c + 1$	
next j	

American Computer Science League

2020-2021 • Contest 2: Shorts • Junior Division

1. 前缀 -中缀-后缀	
如果所有数都是一位数字,计算以下前缀表达式:	A2 B. 6
SHORTH TOXABLE TEXAS / VI ST ON 1 13300 DC 2V 1	C. 12
+ - / * 3 6 2 / + 3 9 4 ^ 2 3	D. 14
	E. 17
2. 前缀-中缀-后缀	A A 20D - /CA D + C + -
请将以下中缀表达式转换为后缀表达式:	A. A2^B+/CAB*C*+ B. A2^B+C/AB*C*+
	C. A2^B+C/A*BC*+
$\frac{A^2+B}{C}+ABC$	D. A2B^+C/AB*C*+ E. A2^B+C/ABC**+
C	L. AZ BIC/ABC
	A. 01011
计算以下表达式:	B. 00101
(01011 OR (NOT 10010) AND 00011)	C. 11011 D. 00011
	E. 01010
4. 比特位操作	
计算以下表达式:	A. 11000 B. 00111
	C. 10100
(NOT (RSHIFT-2 (LCIRC-2 10011)))	D. 11001
	E. 11100
5. 这个程序是做什么的? (循环)	A. 15
执行以下程序时, c 的最终值是多少?	B. 17
c = 0	C. 19 D. 21
for $i = 1$ to 50	E. 23
if i % 4 == 3 then $c = c + 1$	
next i for $j = 2$ to 50 step 2	
if j % 6 == 0 && j % 4 != 0 then $c = c + 1$	
if j % 7 == 0 then $c = c + 1$	
next j	