1. Computer Number Systems

Solve for X_2

$X_2 = A12_{16} - 567_8$

2. Boolean Algebra

Simplify completely

$(\overline{X} + Y)(\overline{X} + \overline{Y})$

3. Boolean Algebra

List all ordered triples (A,B,C) that make the following expression FALSE

$\overline{AB} + A\overline{(B + C)}$

4. Bit String Flicking

Evaluate

(RSHIFT−2 (RCIRC−8 (RSHIFT−2 (10011))))

5. Bit String Flicking

How many values of X (5 bits long) satisfy the following equation?

(RSHIFT−1 X) OR 10110 AND 00101 = 00101