

1. Computer Number SystemsSolve for X_8

$$BAD_{16} = X_8 + 465_8 - 447_8$$

2. Computer Number Systems

How many 1's are in the binary representation of the following hexadecimal sum?

$$59A_{16} + B28D6_{16} + E3E_{16}$$

3. LISP

Evaluate:

$$(\text{CAR}' ((2(3))(4(56))7))$$

4. Recursive FunctionsFind $f(1)$

$$f(x) = \begin{cases} f(x+2) + x & \text{if } x < 6 \\ x - 1 & \text{otherwise} \end{cases}$$

5. Recursive FunctionsFind $f(9,4)$

$$f(x,y) = \begin{cases} f(x-2, 2y) + 1 & \text{if } x > 6 \\ f(x-3, y-1) + 2 & \text{if } 2 \leq x \leq 6 \\ 2x - y & \text{otherwise} \end{cases}$$