Intermediate Division

Short Problems

1. Computer Number Systems

Convert BED from hexadecimal to octal

2. Computer Number Systems

Solve for X₁₆

$$X_{16} = 24415_8 + 56712_8$$

3. LISP

Evaluate:

4. Recursive Functions

Find f (7)

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

5. Recursive Functions

Find f (17)

$$f(x) = \begin{cases} x - f(x+1) & \text{if } x < 3\\ 2x & \text{if } 3 \le x < 5\\ x + f(x-5) & \text{otherwise} \end{cases}$$