Parcial 2

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1) a)

$$\begin{array}{l} 35 \div 2 = 17 \text{ residuo } 1 \\ 17 \div 2 = 8 \text{ residuo } 1 \\ 8 \div 2 = 4 \text{ residuo } 0 \\ 4 \div 2 = 2 \text{ residuo } 0 \\ 2 \div 2 = 1 \text{ residuo } 0 \end{array}$$

En sistema binario 35 se escribe $110001 1_2$

b)

$$\begin{array}{l} 38 \div 6 = 6 \text{ residuo } 2 \\ 6 \div 6 = 1 \text{ residuo } 0 \end{array}$$

$38 = 102_6$

c)

$$\begin{array}{l} 491 \div 8 = 61 \text{ residuo } 3 \\ 61 \div 6 = 10 \text{ residuo } 1 \\ 10 \div 6 = 1 \text{ residuo } 4 \end{array}$$

$491 = 1413_8$

d)

$$\begin{array}{l} 720 \div 16 = 45 \text{ residuo } 0 \\ 45 \div 16 = 2 \text{ residuo } 13 \end{array}$$

$720 = 2(13)0_{16}$

2) a) $10010101_2 = 148_{10}$

$1 \times 2^7 = 128$

$0 \times 2^6 = 0$

$0 \times 2^5 = 0$

$1 \times 2^4 \; 16$

$0 \times 2^3 = 0$

$1 \times 2^2 \; 4$

$0 \times 2^1 = 0$

$1 \times 2^0 \; 1$

b) $162_6 = 74_{10}$

$1 \times 6^2 + 6 \times 6^1 + 2 \times 6^0$

$36 + 36 + 2$

74

Escaneado con CamScanner

c) $407_8 = 263_{10}$

$4 \times 8^2 + 0 \times 8^1 + 7 \times 8^0$

$256 + 0 + 7$

263

d) $FSA_{16} = 3930_{10}$

$F \times 16^2 + 5 \times 16^1 + A \times 16^0$

$3840 + 80 + 10$

3) 1,75