

$$247 = 2 \times 123 + 1 \text{ LSB}$$

$$123 = 2 \times 61 + 1$$

$$61 = 2 \times 30 + 1$$

$$30 = 2 \times 15 + 0$$

$$15 = 2 \times 7 + 1$$

$$7 = 2 \times 3 + 1$$

$$3 = 2 \times 1 + 1$$

$$1 = 2 \times 0 + 1 \text{ MSB}$$

$$0.351 \times 2 = \underline{0.702} \text{ MSB}$$

$$0.702 \times 2 = \underline{1.404}$$

$$0.404 \times 2 = \underline{0.808}$$

$$0.808 \times 2 = \underline{1.616}$$

$$0.616 \times 2 = \underline{1.232}$$

$$0.232 \times 2 = \underline{0.464}$$

$$0.464 \times 2 = \underline{0.928}$$

$$0.928 \times 2 = \underline{1.856} \text{ LSB}$$

$$(247.351)_{10} = (11110111.01011001000)_2$$

$$\begin{aligned} \text{b) } X - Y &= 11010101 - 11100101 = X + (-Y) \\ &= X + C_2(Y) \end{aligned}$$

$$C_2(Y) = C_1(Y) + 1 = 00011010 + 1 = 00011011$$

$$X - Y = 11010101 + 00011011$$

$$\begin{array}{r} 11010101 \\ + 00011011 \\ \hline 11110000 \end{array}$$

Como  $X < Y$ ,  $X - Y < 0$ , bit de sinal = 1

$$(X - Y)_{\text{compl. 2, notação sinal}} = 111110000$$

$$\text{c) } ( )_{\text{BCD}} \rightarrow ( )_{10}$$

$$X_{\text{BCD}} = [0111][0101][0011][1001]$$

$$\begin{array}{cccc} 7 & 5 & 3 & 9 \end{array}$$

$$X_{\text{BCD}} = (7539)_{10}$$