

Exercício 03

$$3) 24 \mid 2$$

$$0 \ 32 \mid 2$$

$$0 \ 6 \mid 2$$

$$0 \ 3 \mid 2$$

$$3 \ 3$$

$$33000_2 \quad L = \textcircled{A}$$

$$2) 2^4 = 16$$

$$L = \textcircled{C}$$

$$3) a)$$

$$03303_2 = 0 \cdot 2^4 + 3 \cdot 2^3 + 3 \cdot 2^2 + 0 \cdot 2^1 + 3 \cdot 2^0 = 33_{10}$$

$$b)$$

$$3AB_{36} = 3 \cdot 36^2 + 30 \cdot 36^1 + 33 \cdot 36^0 = 427_{10}$$

$$c)$$

$$29_8 = 2 \cdot 8^1 + 9 \cdot 8^0 = 25_{10}$$

$$d)$$

$$32_8 = 3 \cdot 8^1 + 2 \cdot 8^0 = 30_{10}$$

$$4) a) 2^6 - 3 = 63$$

$$b) 30^6 - 3 = 999999$$

$$c) 8^6 - 3 = 262143$$

$$d) 36^6 - 3 = 36777235$$

$$5) a) 30^7 - 3 = 9999999$$

$$c) 8^5 - 3 = 32767$$

$$b) 2^6 - 3 = 63$$

$$d) 36^4 - 3 = 65535$$