

# Grupo 1

1A a)  $(345.103)_8 \rightarrow \text{decimal}$

$$\begin{aligned}
 &= 3 \times 8^2 + 4 \times 8 + 5 \times 1 + 1 \times \left(\frac{1}{8}\right) + 3 \times \left(\frac{1}{8^3}\right) \\
 &= 3 \times 64 + 32 + 5 + 0.125 + 0.00586 \\
 &= 192 + 37 + 0.131 \\
 &= (229.131)_{10}
 \end{aligned}$$

b)  $C_2(11011101) = C_1(\dots) + 1 = 00100010 + 1$   
 $= 00100011$

c)  $(479.081)_{10} \rightarrow \text{BCD}$

$$= ([0100][0111][1001])_{\text{BCD}} \cdot ([0000][1000][0001])_{\text{BCD}}$$

$$= (010001111001.000010000001)_{\text{BCD}}$$

1B

a)  $(812.209)_{10} \rightarrow \text{octal}$

$$\begin{array}{r}
 812 \overline{) 8} \\
 \text{LSB } \boxed{4} \quad 101 \overline{) 8} \\
 \quad \boxed{5} \quad 12 \overline{) 8} \\
 \quad \quad \boxed{4} \quad 1 \overline{) 8} \\
 \quad \quad \quad \text{MSB } \boxed{1} \quad 0
 \end{array}$$

$$(812)_{10} = (1454)_8$$

$$0.209 \times 8 = \boxed{1}.672 \quad \text{MSB}$$

$$0.672 \times 8 = \boxed{5}.376$$

$$0.376 \times 8 = \boxed{3}.008$$

$$0.008 \times 8 = \boxed{0}.064$$

$$0.064 \times 8 = \boxed{0}.512$$

$$0.512 \times 8 = \boxed{4}.096 \quad \text{LSB}$$

$$(0.209)_{10} = (0.153004)_8$$

$$(812.209)_{10} = (1454.153004)_8$$