

**Exercice 1 :** Convertir les nombres suivants (04 points= chaque conversion sur 0.5 point)

$$(54)_{10}=(110110)_2=(66)_8=(36)_{16} \quad (1.5 \text{ points})$$

$$(40531)_8=(100000101011001)_2=(4159)_{16} \quad (1 \text{ point}).$$

$$(1101011101)_2=(861)_{10} \quad (0.5 \text{ point})$$

$$(1101011101011100101)_2=(1353345)_8=(6BAE5)_{16} \quad (1 \text{ point})$$

**Exercice 2 :** Effectuer les opérations suivantes (16 points= chaque opération sur 2 points)

$$\begin{array}{r} 10110101001 \\ + \quad 1011101011 \\ \hline = 100010010100 \end{array}$$

$$\begin{array}{r} 11001000100 \\ - \quad 1000100101 \\ \hline = 10000011111 \end{array}$$

$$\begin{array}{r} 10100110101 \\ \times \quad \quad \quad 11 \\ \hline 10100110101 \\ 10100110101. \\ \hline 111110011111 \end{array}$$

Base 2

$$\begin{array}{r} 63451 \\ + \quad 5466 \\ \hline = 71137 \end{array}$$

$$\begin{array}{r|l} 54162 & 421 \\ \hline 421 & \\ \hline 1206 & 122 \\ 1042 & \\ \hline 1442 & \\ 1042 & \\ \hline 400 & \end{array}$$

Base 8

$$\begin{array}{r} A39C0 \\ - \quad C50E \\ \hline = 974B2 \end{array}$$

$$\begin{array}{r} D853 \\ + \quad E964 \\ \hline = 1C1B7 \end{array}$$

$$\begin{array}{r} 64B3 \\ \times \quad \quad 5F \\ \hline 5E67D \\ 1F77F. \\ \hline 255E6D \end{array}$$

Base 16

**Bon courage**