

TD 1 (Series of Exercises n°1)

Exercise N°01

Convert the following numbers :

$$13_{(10)} = \dots\dots\dots(2)$$

$$30_{(10)} = \dots\dots\dots(8)$$

$$29_{(10)} = \dots\dots\dots(16)$$

$$11001_{(2)} = \dots\dots\dots(10)$$

$$136_{(8)} = \dots\dots\dots(10)$$

$$10010_{(2)} = \dots\dots\dots(10)$$

$$67_{(8)} = \dots\dots\dots(10)$$

$$132_{(2)} = \dots\dots\dots(10)$$

$$198_{(8)} = \dots\dots\dots(10)$$

$$13E_{(16)} = \dots\dots\dots(10)$$

$$ABC_{(16)} = \dots\dots\dots(10)$$

Exercise N°02

1- Give in binary, octal and hexadecimal the representation of the lower decimal numbers of 16

2- Make the following conversions by two methods:

$$A1C_{(16)} = \dots\dots\dots(2)$$

$$101110001_{(2)} = \dots\dots\dots(8)$$

$$A1C_{(16)} = \dots\dots\dots(8)$$

$$110110111_{(2)} = \dots\dots\dots(16)$$

Exercise N°03

1- Perform in binary then check the following operations in decimal :

$$\begin{array}{r} 110011 \\ + 10111 \\ \hline \end{array}$$

$$\begin{array}{r} 100011 \\ - 101 \\ \hline \end{array}$$

$$\begin{array}{r} 101 \\ \times 110 \\ \hline \end{array}$$

$$\begin{array}{r} 110011 \\ + 11101 \\ \hline \end{array}$$

$$\begin{array}{r} 101011 \\ - 1111 \\ \hline \end{array}$$

$$\begin{array}{r} 110 \\ \times 11 \\ \hline \end{array}$$

$$\begin{array}{r|l} 1111 & 11 \\ \hline & \end{array}$$

$$\begin{array}{r|l} 1100 & 10 \\ \hline & \end{array}$$

2- Perform in octal then check the following operations in decimal :

$$\begin{array}{r} 176 \\ + 573 \\ \hline \end{array}$$

$$\begin{array}{r} 352 \\ - 271 \\ \hline \end{array}$$

3- Perform in hexadecimal then check the following operations in decimal :

$$\begin{array}{r} 20E \\ + F3 \\ \hline \end{array}$$

$$\begin{array}{r} 12F \\ - 3E \\ \hline \end{array}$$