SERIE N°1

Exercise 1: Convert the following numbers

A/

	6	64	123	200
Binary				
Octal				
Hexadecimal				
Others	B3?	B5?	B7?	B4?

B/

(1010101110)$_2$ = ( )$_{10}$ **(11010101)$_2$** = ( )$_{10}$ **(57)$_8$** = ( )$_{10}$ **(1432)$_8$** = ( )$_{10}$

(BAC)$_{16}$ = ( )$_{10}$ **(152)$_{16}$**= ( )$_{10}$ **(143)$_7$** = ( )$_{10}$ **(1258)$_9$**= ( )$_{10}$

C/

	1111	10011001	10111101001	101110110010101
Octal				
Hexadecimale				
Base 4				

D/ **(32)$_4$** = ( )$_2$ **(102)$_4$** = ( )$_2$ **(17)$_8$** = ( )$_2$ **(526)$_8$**=( )$_2$ **(FAC)$_{16}$**= ( )$_2$

(A7C2B1)$_{16}$ = ( )$_2$ **(15)$_7$**=( )$_5$ **(138)$_8$**=( )$_9$ **(A1)$_{11}$**=( )$_{12}$ **(112)$_3$** = ( )$_5$

(32)$_4$ = ( )$_8$ **(102)$_8$** = ( )$_{16}$ **(17)$_{16}$**= ( )$_4$ **(121)$_4$**=( )$_{16}$ **(FAC)$_{16}$**= ( )$_8$

E/ $(15.25)_{10} = (\ )_2 = (\ )_8 = (\ )_{16} = (\ )_4$ $(45.75)_{10} = (\ )_2 = (\ )_8 = (\ )_{16} = (\ )_4$

$(1010111.11)_2 = (\ )_{10}$ $(12.2)_8 = (\ )_{10}$ $(A.8)_{16} = (\ )_{10}$ $(14.12)_5 = (\ )_{10}$

$(1011.101)_2 = (\ )_4 = (\ )_8 = (\ )_{16}$ $(10010.101)_2 = (\ )_4 = (\ )_8 = (\ )_{16}$

$(12.3)_4 = (\ )$ $(54.2)_8 = (\ )_2$ $(BAC.15)_{16} = (\quad)_2$

$(12.3)_4 = (\ )_8$ $(13.2)_8 = (\ )_{16}$ $(A.C)_{16} = (\ )_4$ $(3.12)_4 = (\ )_{16}$ $(A.F)_{16} = (\ )_8$

EXERCISE 2 : ***Perform the following arithmetic operations***

A/ $(10011101)_2 + (11000010)_2$ | $(11001100)_2 + (10111001)_2$ |

$(11001111)_2 - (10001100)_2$ $(10101010)_2 - (1000010)_2$ |

$(1110010)_2 \times (10)_2$ | $(10101101)_2 \times (11)_2$

$(10010000111)_2 / (1011)_2$ | $(1001001)_2 / (101)_2$

B/ $(752)_8 + (64)_8$ $(1572)_8 + (1321)_8$

$(654)_8 - (322)_8$ $(452)_8 - (63)_8$

$(143)_8 \times (24)_8$ $(153)_8 \times (26)_8$

C/ $(17A)_{16} + (52)_{16}$ $(A9C)_{16} + (48)_{16}$

$(F7A)_{16} - (D58)_{16}$ $(D84)_{16} - (95)_{16}$

$(A42)_h \times (12)_h$ $(9E7)_h \times (13)_h$

D/ $(651)_7 + (234)_7$ $(421)_5 - (34)_5$

$(121)_3 \times (22)_3$ $(A2C)_D + (4AB)_D$