Arithmetic operation :

1-Binary addition :

	Carry	sum
0 + 0 =		0
0 + 1 =		1
1 + 0 =		1
1 + 1 =	1	0

EX:

1		1 1	
11	100	111	110
+11	+ 10	+ 11	+100
110	110	1010	1010

2-Binary subtraction :

0 – 0 = 0
1 – 1 = 0
1 – 0 = 1
$^{10}\cancel{0}$ – 1 = 1 with borrow 1

EX:

		10	10
11	11	1$\cancel{0}$1	11$\cancel{0}$
-01	-10	-011	-101
10	01	010	001

3-Binary multiplication :

0 x 0 = 0
0 x 1 = 0 the same manner as in Decimal
1 x 0 = 0
1 x 1 = 1

EX:

11	111
X 11	x 101

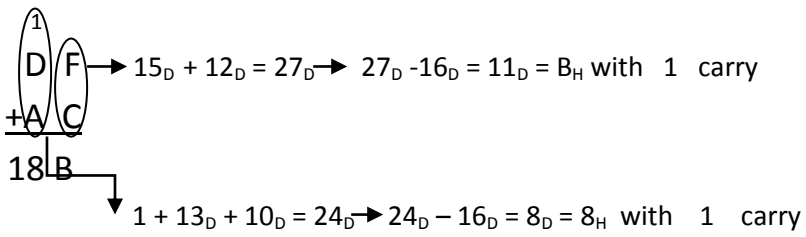
```
   11          111
 + 11        + 000
 ----        -----
 1001         111
             ------
             100011
```

Hexadecimal addition :

EX:

23	58	2B
+16	+22	+84
39_H	$7A_H$	AF_H

EX:



Octal addition :

EX:

```
  14
+23
----
 37o
```

EX: