## Chapter-3

## 

The attraction is that each hex degit contains one of 16 dibberrent characters. (0-9, A-E). Since with 4 binary bits you can represent 16 dibberrent patterns, in hex each digit requires exactly 4 binary bits.

mantise = 0

3.12 62x12

Step	Action	Multiplier	Multiplicand	57 Product			
0	Initial values	001 010	000 000 110 010	0000 0000 0000			
1	lsb=0, no of Lebt mound Rahibt mplier	000 101	000 001 100 100	000 0000 0000			
2.	Prood = Prood + Meand Lahibt meand Rahibt mpliers	000 000	000 011 001 000	000 001 100 100			
3.	lab = 0, no op Lahift meand Rahif mplier	000 001	000 110 010 006	000 001 100 100			
4.	Prod = Prod + mound Lahiff mound Rahiff mplier	000 000	0001 100 100 000	000 111 110 100			
5.	Lahibt meand Rahibt mplier	000 000	011 001 000 000	000 111 110 100			
6	Labibt mound Rahibt mplier	000 000	110010 000 000	000 111 110 100			

			the same of the same	
Hereation	Step	Multiplier	multiplicand	Product
Kero water	Initial values tova	0111	0,000 0011	0000 0000
110 3000	1a: 1 => Priod = Priod + Meand	0111 9.	10000000H	1100000011
1110 0111	2: Shiff left multiplicand	0/1/2	000000110	0000 0011
	3: Shift right multiplier	@ 011 vid+	(0000, 0,110	0000 0011
11102000	1a: 1=> Priod = Prodo+ Meand		00000110	0000 1001
1110 1111	a: Shiff left multiplicand	0011	0000 1100	00 00 1001
1110 0000	3 Shibt reight Multipliers	10000 VICI+	0000 1100 6 Remace	0000 1001
	1a:1 => Prod = Prod + Meand	1000 JARIA	00 00 1100	1010 0000
	2: Shibt left multiplicand	0001	0000 1000	0001 0101
1110 0000	3. Shibt right multipliere	0000	0001 1000	0001 0101
1110,0000	0010,0000 0000		via dida:	3

4. Li Rem = Ren - Div (00100) x x (0100) (00 + 000) (00 + 000) (00 + 000) (00 + 000) (000)

Holle	ercation	Step	Multiplierc	multiplicand &	Product
1000	000	Initial values	0100	0000 0010	0000 0000
1000	0000	10: 1 => Prod = Prod + Meand	101000 110	0000 0010	0000 0010
1000	0000	2: Shift left multiplicand- 3: Shift right multipliere	0010	0000 0100	0000 0010
	2.	1a: 1 >> Prod >> Prod + Meand 2: Shift left Multiplicand 3: Shift reight Multiplier	0010	0000 1000	0000 0110
	3.	1a: 1 => Prod = Prod + Meand 2: Shift left multiplicand 3: Shift right multiplier	0001	0001 0000	0000 1110
	4.				

カ 暦 700 2

 $3 \times 7 \rightarrow (0011)_{2} \times (0111)_{2}$ 

3.19	multipliene multiplicand		Step	Herwhon
Herration	1100 Step 1110	Quotiento		Remainder
1100 0000	Initial value 1110 bries	The state of the s	0,010 0000	0000 0111
1	1a: Rem = Rem - Div		10010100000	D110 0111
7. 0 00000	26: Rem 20 \$+Div, 1811 8, 80=0		1001010000	
	0	(D) 0 (D) 0	0000	0000.0111
002.000	1. Rem = Rem - Div	0,000	000100000	D1110111
	2 b: Rem<0 ⇒+Div, all a, a0=0	0000	0000-0000	0000 0111
1010 11000	3. Shift Div Right 00 broom	100000 = E	000010001	0000 0111
3	Li Pem = Pem = Ni	0000	0000 1000	
013 1000	1: Rem = Rem - Div		그 강이 하게 되다 말이 있어 그 뭐라.이.네. 되는하는	1111 1111
	26; Rem <0 >+ biv, all &, Q0=0	10000	00000000	역기가 되면 결과 선 되지하고 있을 때 그릇
	3: shib Div Right	0000	0000 0100	0000 0111
4.	1: Rem = Rem - Div	09990	0000 0100	0000 0011
	2; Ræm ≥0, 1110, Q0=15	0001	60000100	0000 000 II
moduet	3. shib in Div Rightion	0 001	0000 0010	110000001
000 g		0001	000010010	0000 0001
100 0000	2: Rem >0,001 Q, 80=161201	10,0,11 = b	20000 0010	0000 0001
100 0000	3:00 0000 0100 state 6000	let 1100 or	00000001	0000 0001
0110 000	19 10kg : (1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		10 : 1 > m	.5:

Heration	Step	Quotient	Divisor	Reminder
O	Initial value pso	0000	0010 0000	00000011
1	R1: Rem = Rem-Div	0,00,0	0010 0000	01100011
•	26: Rem <0 >+ Dive, 10, 0,=0	9900	0010 0000	00000011
	3: Shift div right	०००० लां	0001 0600	0000 0011
2.	1: Rem = Rem - Div	0000	0001 0000	DIII 0011
	26: Rem <0 ⇒+ biv. 110, Q=0	0000	0001 0000	0000 0011
	3. shift div reight	3932000	90001000	00000001
3.	1: Rem = Rem-Div	000018.	0000 1000	D111 1011
	76: Rem <0 →+Div, 2118, Q=0	0000	0000 1000	0000 0011
	3: shift div reight look	0000	0000 0100	0000 0011
4.	1: Rem = Rem - Div	0000	00000000000	01110 4111
)-)	26: Rem 40 >+ Div, all 8, 0,=0	0000	0000 0100	0000 60011
	3. Shibt div reight 2.1	0000	0 20110112101	0000 00 N
5.	: Rem = Rem - Div	0000	0000 0010	0000 0001
12	26: Rem>015 7011 0; 0=1	000157	0 000000000	0000 0001
	3: shift div right	0001	0000 0001	1000 0000

Pen bon mance of P3 = 4x109 = 1.8x109

3.22

Total Peril

all aigh isospositive a sold as but a not sent the A exp = 0x18/12 . (1-11 , 6-0) . SINSP x0 = 120 4x9 4 worth 24 F127 = 12 in the song on was way atid there is a hidden 1

mantinsa = 0

on swer = 1.0 x 2 103 0.51 11 A S W odou coopy and off total ere

220 2000 200 001 001 100 001 101000

OF DOL 100 000 000 140 (110 DEC 100 000)

Just 1:20 000 - 000 010 0(1 00) - 100 000

19 11 111 000 000 001 100 100 000 000 mailers

11 11 0 00 CM 000 010 610

113 11911 - W 16 9

Rid - Fred + Mound Lamber Holand Del St. Miller

go on we dol brown to de 1 is ship upie in

Louden bord - Los borom tode.

40 ca c = 40 Land File Wend Robiet Mphen

Halos Dadel white more

Rahat milited over Down