

Fernando Zamora Rico 1º DAW – B

Prueba Práctica

1. $10101111 \rightarrow 175$
 $01111011 \rightarrow 123$
 $00010101 \rightarrow 21$
2. $568 \rightarrow 1000111000$
 $1020 \rightarrow 1111111100$
 $3784 \rightarrow 111011001000$
3. $10101111 + 01111011 = 100101010$
4. $10101111 - 01111011 = 00110100$
5. $10101111 * 01111011 = 101010101010101$
6. $10101111 / 01111011 = 1$ de resto 00110100

Fernando Zamora Rico

2^7	2^6	2^5	2^4	2^3	2^2	2^1	2^0
128	64	32	16	8	4	2	1

①

10101111
 $2^7 + 2^5 + 2^3 + 2^2 + 2^1 + 2^0 = 128 + 32 + 8 + 4 + 2 + 1 = 175_{10}$

01111011
 $2^6 + 2^5 + 2^4 + 2^3 + 2^1 + 2^0 = 64 + 32 + 16 + 8 + 2 + 1 = 123_{10}$

00010101
 $2^4 + 2^2 + 2^0 = 16 + 4 + 1 = 21_{10}$

② $568 \rightarrow 1000111000$

$568 / 2 = 284$
 $284 / 2 = 142$
 $142 / 2 = 71$
 $71 / 2 = 35$
 $35 / 2 = 17$
 $17 / 2 = 8$
 $8 / 2 = 4$
 $4 / 2 = 2$
 $2 / 2 = 1$

$1020 \rightarrow 1111111100$

$1020 / 2 = 510$
 $510 / 2 = 255$
 $255 / 2 = 127$
 $127 / 2 = 63$
 $63 / 2 = 31$
 $31 / 2 = 15$
 $15 / 2 = 7$
 $7 / 2 = 3$
 $3 / 2 = 1$

②

3784	2
17	1892
18	09
04	12
01	01
06	07
13	236
03	118
16	18
01	01
19	29
09	14
01	07
03	03
01	01

3784 = 111011001000

③

1	1	1	1	1	1	1	1
1	0	1	0	1	1	1	1
+ 0 1 1 1 1 0 1 1							

1	0	0	1	0	1	0	0

④

1	1	1	1	1	1	1	1
1	0	1	0	1	1	1	1
- 0 1 1 1 1 0 1 1							

0	0	1	1	0	1	0	0

⑤

1	0	1	0	1	1	1	1
x 0 1 1 1 1 0 1 1							

⑤

1	0	1	0	1	1	1	1
x 0 1 1 1 1 0 1 1							

1	0	1	0	1	1	1	1
0	0	0	0	0	0	0	0
1	0	1	0	1	1	1	1
1	0	1	0	1	1	1	1
1	0	1	0	1	1	1	1
1	0	1	0	1	1	1	1
1	0	1	0	1	1	1	1
+ 0 0 0 0 0 0 0 0							

1	0	1	0	1	0	1	0

⑥

1	1	1	1	1	1	1	1
1	0	1	0	1	1	1	1
- 0 1 1 1 1 0 1 1							

0	0	1	0	1	0	0	0