

1a. Decimal para binário

① $10_{(10)}$

10	2
5	2
2	2
1	2
1	

$1010_{(2)}$

② $67_{(10)}$

67	2
33	2
16	2
8	2
4	2
2	2
1	

$1000011_{(2)}$

③ $450_{(10)}$

256	128	64	32	16	8	4	2	1
1	1	1	0	0	0	0	1	0

$450 - 256 = 194$
 $194 - 128 = 66$
 $66 - 64 = 2$
 $2 - 2 = 0$

$11100010_{(2)}$

④ $999_{(10)}$

512	256	128	64	32	16	8	4	2	1
1	1	1	1	1	0	0	1	1	1

$999 - 512 = 487$
 $487 - 256 = 231$
 $231 - 128 = 103$
 $103 - 64 = 39$
 $39 - 32 = 7$
 $7 - 4 = 3$
 $3 - 2 = 1$
 $1 - 1 = 0$

$1111100111_{(2)}$

⑤ $325_{(10)}$

256	128	64	32	16	8	4	2	1
1	0	1	0	0	0	1	0	1

$325 - 256 = 69$
 $69 - 64 = 5$
 $5 - 4 = 1$
 $1 - 1 = 0$

$101000101_{(2)}$

⑥ $650_{(10)}$

512 256 128 64 32 16 8 4 2 1
1 0 1 0 0 0 1 0 1 0
 $650 - 512 = 138$
 $138 - 128 = 10$
 $10 - 8 = 2$
 $2 - 2 = 0$
 $1010001010_{(2)}$

1b. binário para decimal

- ① $111_{(2)}$ $2^2 2^1 2^0$ $4 + 2 + 1 = 7_{(10)}$
 ② $1001_{(2)}$ $2^3 2^2 2^1 2^0$ $8 + 1 = 9_{(10)}$
 ③ $10000_{(2)}$ $2^4 2^3 2^2 2^1 2^0$ $16 = 16_{(10)}$
 ④ $111000_{(2)}$ $2^5 2^4 2^3 2^2 2^1 2^0$ $32 + 16 + 8 = 56_{(10)}$
 ⑤ $1011011_{(2)}$ $2^6 2^5 2^4 2^3 2^2 2^1 2^0$ $64 + 16 + 8 + 2 + 1 = 91_{(10)}$
 ⑥ $1100101_{(2)}$ $2^6 2^5 2^4 2^3 2^2 2^1 2^0$ $64 + 32 + 4 + 1 = 101_{(10)}$

1c. decimal para hexadecimal

- ① $1600_{(10)}$ 16
 $100 \ 16$
 $96 \ 6$
 4
 $640_{(16)}$
 ② $999_{(10)}$ 16
 $992 \ 62 \ 16$
 $7 \ 48 \ 3$
 E
 $3E7_{(16)}$
 ③ $750_{(10)}$ 16
 $736 \ 46 \ 16$
 $32 \ 2$
 E
 $2EE_{(16)}$
 ④ $27_{(10)}$ 16
 $16 \ 1$
 B
 $1B$

1d. Hexadecimal para decimal

(1) 99 (16)

$$16^1 + 16^0$$

$$144 + 9 = 153_{(10)}$$

(2) 110 (16)

$$16^2 + 16^1 + 16^0$$

$$256 + 16 + 16 = 288_{(10)}$$

(3) 105 (16)

$$16^2 + 16^1 + 16^0$$

$$256 + 5 = 261_{(10)}$$

(4) F04 (16)

$$16^2 + 16^1 + 16^0$$

$$3840 + 4 = 3844_{(10)}$$

(5) C8F (16)

$$16^2 + 16^1 + 16^0$$

$$3328 + 128 + 15 = 3471_{(10)}$$

(6) BA35 (16)

$$16^3 + 16^2 + 16^1 + 16^0$$

$$45056 + 2560 + 48 + 5 =$$

$$47669_{(10)}$$