3. (1) $(25.8125)_{10} = (11001.1101)_2 = (31.64)_8 = (19.D)_{16}$

(2) $(10110.011)_2 = (45.375)_{10} = (55.3)_8 = (2D.6)_{16} = (0100\,01.0011\,0111\,0101)_{8421}$

(3) $(0101\,1001\,0110.0011)_{8421} = (596.3)_{10} = (1001\,0101\,00.0100\,1100\cdots)_2$

$= (254.4CC\cdots)_{16}$

(4) $(4E.C)_{16} = (1001110.1100)_2 = (78.75)_{10}$

4. $[+0.1001]_{原} = 0100\ 1000$

$[-0.1001]_{原} = 1100\ 1000$

$[+1.0]_{原}$ 不能表示.

$[-1.0]_{原}$ 不能表示.

$[+0.0100\,0]_{原} = 0010\ 1000$

$[-0.0100\,0]_{原} = 1010\ 1000$

$[+0]_{原} = 0000\ 0000$

$[-0]_{原} = 1000\ 0000$

5. $[+1001]_{移} = 1000\ 1001$
$[+1001]_{补} = 0000\ 1001$
$[-1001]_{移} = 0111\ 0111$
$[-1001]_{补} = 1111\ 0111$
$[+1]_{移} = 1000\ 0001$
$[+1]_{补} = 0000\ 0001$
$[-1]_{补} = 1111\ 1111$
$[-1]_{移} = 0111\ 1111$

$[+1010\,0]_{移} = 1001\ 0100$
$[+1010\,0]_{补} = 0001\ 0100$
$[-1010\,0]_{补} = 1110\ 1100$ $[-1010\,0]_{移} = 0110\ 1100$
$[+0]_{补} = 0000\ 0000$
$[-0]_{补} = 0000\ 0000$
$[+0]_{移} = [-0]_{移} = 1000\ 0000$

6. (1) $[X]_{补} = 1110\ 0111$

$X = -2^7 + 2^6 + 2^5 + 2^2 + 2^1 + 2^0 = -25$

(2) $[X]_{补} = 1000\ 0000$

$X = -2^7 = -128$

(3) $[X]_{补} = 0101\ 0010$

$X = 2^6 + 2^4 + 2^1 = 82$

(4) $[X]_{补} = 1101\ 0011$

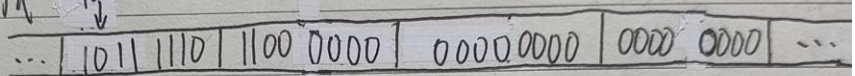
$X = -2^7 + 2^6 + 2^4 + 2^1 + 2^0 = -45$

8. (1) FFFF8000 (2) 020A (3) 0000FFFA
(4) 40 (5) BF8CCCCC
(6). 4025 0000 0000 0000

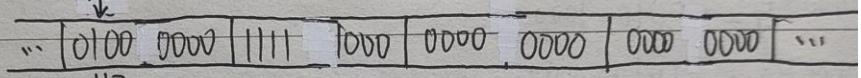
9. (1) ~~6=2^16~~ -65530 (2) -8196 (3) $2^{32}-6$
(4) * (5) $-1.5625 \times 2^{-55}$
(6) $-1.28125 \times 2^{-509}$

17. 大端方式:

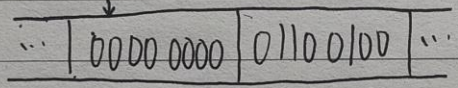
X:




Y:

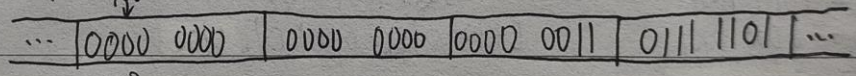



i:

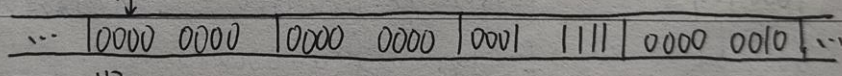



小端方式:

X:




Y:




i: