

6.3

当 $x < 0$ 时, $[x]_{\text{补}} = 2^{n+1} + x$ ($n=5$) 关于 x 递增, 由于 $x < -16$, 则 $[x]_{\text{补}} = 1, x_1x_2x_3x_4x_5 < 1000000 - 10000 = 110000$

故 x_1 应当取 0, $x_2x_3x_4x_5$ 任意。

6.5

(按书上习题横向顺序编号)

(1) $[x]_{\text{补}} = 1.1100$ $[x]_{\text{原}} = 1.0100$ $x = -0.25$

(2) $[x]_{\text{补}} = 1.1001$ $[x]_{\text{原}} = 1.0111$ $x = -0.4375$

(3) $[x]_{\text{补}} = 0.1110$ $[x]_{\text{原}} = 0.1110$ $x = 0.875$

(4) $[x]_{\text{补}} = 1.0000$ $[x]_{\text{原}} = 1.0000$ $x = -0$

(5) $[x]_{\text{补}} = 1,0101$ $[x]_{\text{原}} = 1,1011$ $x = -11$

(6) $[x]_{\text{补}} = 1,1100$ $[x]_{\text{原}} = 1,0110$ $x = -6$

(7) $[x]_{\text{补}} = 1,0111$ $[x]_{\text{原}} = 1,1001$ $x = -9$

(8) $[x]_{\text{补}} = 1,0000$ $[x]_{\text{原}} = 1,0000$ $x = -0$

6.6

对所有正数, $[x]_{\text{原}} = [x]_{\text{补}} = 0, x$

对于负数:

整数情况时, $[x]_{\text{原}} = 2^7 - x$ $[x]_{\text{补}} = 2^{7+1} + x$, 令 $[x]_{\text{原}} = [x]_{\text{补}}$, 得 $x = -2^6 = -1000000$

小数情况时, $[x]_{\text{原}} = 1 - x$ $[x]_{\text{补}} = 2 + x$, 令 $[x]_{\text{原}} = [x]_{\text{补}}$, 得 $x = -0.1000000$

6.9

9BH=1001,1011

FFH=1111,1111

$2^7=128$ $x<0$ 时, $x=2^7-[x]_{\text{原}}=[x]_{\text{补}}-2^8=[x]_{\text{反}}-2^8+1=[x]_{\text{移}}-2^7$

表示方式	原码	补码	反码	移码	无符号数
9BH	-27	-101	-100	27	155
FFH	-127	-1	-0	127	255