

Компютърни архитектури Домашна Работа

Рафи Цигаров №2201261077

$N_1 = -616$

13.а) $616 : 2 = 1001101000$

308	0
154	0
77	0
38	1
19	0
9	1
4	1
2	0
1	0
0	1

$ПК = 11001101000$

11001101000 инвертиране към обратен код

$OK = 10110010111$

11110010111
+1
11110011000

$DK = 11110011000$

305

$$\text{ПК9}(x) = \text{ОК9}(y) = \text{ДК9}(z) = 100111011$$

$$00111011 = 0.2^7 + 0.2^6 + 1.2^5 + 1.2^4 + 1.2^3 + 0.2^2 + 1.2^1 + 1.2^0 = 32 + 16 + 8 + 2 = 58$$

$$x = -58(10)$$

~~инвертирование~~ отрицание 00111011

$$11000100 = 128 + 64 + 4 = 196$$

$$y = -196$$

$$\cancel{00111010 + 1} = \cancel{00111011}$$

$$00111010 = 00111011 - 1$$

$$11000101 = \cancel{196} + 128 + 64 + 4 + 1 = 197$$

$$z = -197$$

13. б) НКПЗ_{5,8} (N3)

НКПЗ_{5,8} (59,125)

$$59:2 = 111011(2)$$

$$29 \mid 1$$

$$14 \mid 1$$

$$7 \mid 0$$

$$3 \mid 1$$

$$1 \mid 1$$

$$0 \mid 1$$

$$2.0,125 = 0,01(2)$$

$$0 \mid 25$$

$$125 \cdot 2 = 250$$

$$0 \mid 5$$

$$250 \cdot 2 = 500$$

$$1 \mid 1$$

$$500 \cdot 2 = 1000$$

$$\Rightarrow 59,125_{(10)} = 111011,01(2) = 1,1101101(2) \cdot 2^5$$

$$\mathcal{U}K_n(A) = 2^{n-1} + A$$

$$\Rightarrow \text{НКПЗ}_{5,8}(59,125) = 0 \ 10101 \ 11101101(2)$$

137)

$$KПЗ 4,7 (K) = \underline{101101001000} (2)$$

$$K = -1,001000 (2) \cdot 2^h$$

$$UK4(h) = 0110 (2)$$

$$6 = 0110 (2) = UK4(h) = 2^3 + h = 8 + h$$

$$h = -2$$

$h < 0$ запетаята се движи наляво

$$K = -1,001000 \cdot 2^{-2} = 0,010010$$

$$K = 0 \cdot 2^4 + 0 \cdot 2^3 + 1 \cdot 2^2 + 0 \cdot 2^1 + 0 \cdot 2^0 + 1 \cdot 2^{-1} + 0 \cdot 2^{-2} =$$

~~0~~

$$= 4 + \frac{1}{2} = \frac{9}{2} = -4,5$$