Компютърни архитектури Домашна Работа

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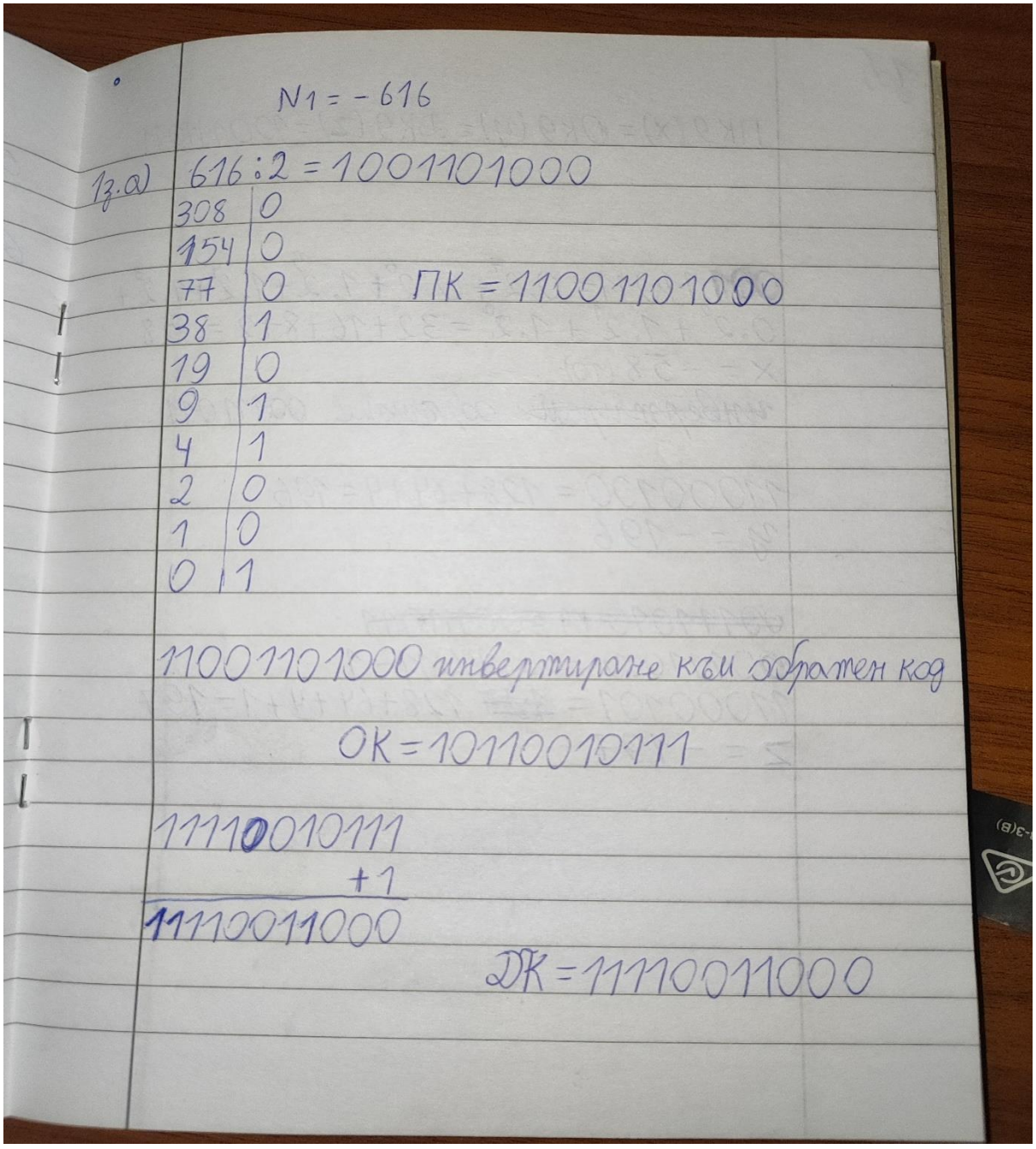

3.б)

ПК9(x) = ОК9(y) = ДК9(z) = 10011011

00111011 = $0 \cdot 2^7 + 0 \cdot 2^6 + 1 \cdot 2^5 + 1 \cdot 2^4 + 1 \cdot 2^3 +$
$0 \cdot 2^2 + 1 \cdot 2^1 + 1 \cdot 2^0 = 32 + 16 + 8 + 2 = 58$
x = -58(10)
~~инвертирование~~ обращение 00111011

11000100 = 128 + 64 + 4 = 196
y = -196

~~00111010 + 1 = 00111011~~
00111010 = 00111011 - 1
11000101 = ~~197~~ 128 + 64 + 4 + 1 = 197
z = -197

1з. В) НКПЗ$_{5,8}$ (N3)

НКПЗ$_{5,8}$ (59,125)

59 : 2 = 111011 (2)

29	1
14	1
7	0
3	1
1	1
0	1

2 . 0,125 = 0,01 (2)

0	25	125 . 2 = 250
0	5	250 . 2 = 500
1	1	500 . 2 = 1000

$\Rightarrow 59,125_{(10)} = 111011,01_{(2)} = 1,11011101_{(2)} \cdot 2^5$

$ЧК_n(A) = 2^{n-1} + A$

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

1з г) КПЗ 4,7 (K) = 10110 1001000 (2)

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

ИК4 (h) = 0110 (2)

$6 = 0110_{(2)} = ИК4(h) = 2^3 + h = 8 + h$

$h = -2$

$h < 0$ запетаята се движи наляво

$K = -1.001000 \cdot 2^{-2} = 0,010010$

$K = 0.2^4 + 0.2^3 + 1.2^2 + 0.2^1 + 0.2^0 + 1.2^{-1} + 0.2^{-2} =$

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