

заг 1

$$X = -17 \quad Y = 5 \quad Z = X + Y = ?$$

$$n = 12 [b] \quad k = 4 [b] \quad m = 12 - 4 = 8 [b]$$

$$X = -10001 = -0,10001 \cdot 2^5 \xrightarrow{\text{глицко } \tau \rightarrow \text{прел на поз.}} H = 8 + 5 = 13$$

знак 13 хар. незнатици 0  $\rightarrow 2^3$  от k в гр. част

$$X = -0,10001 \cdot 2^5$$

$$Y = +101 = +0,101 \cdot 2^3 = 3 H = p + 0 = 3 + 8 = 11$$

~~11~~

$$|0|1011|1010000|$$

изравнен ст. по

$$Y = +101 = 0,101 \cdot 2^3 = 0,00101000 \cdot 2^5 = 13$$

$$0|1101|0010100$$



$$[X] = -17 = -0,10001 \rightarrow \begin{array}{r} 11000100 \text{ ПК} \rightarrow \\ 0111011 \\ + \phantom{0000000} 1 \\ \hline 10111100 \end{array}$$

$$\begin{array}{r} 10111100 \quad H=13 \\ + 00010100 \quad H=13 \\ \hline \end{array}$$

$$Z = \begin{array}{r} 11010000 \text{ АК} \rightarrow 10110000 \text{ ДУК} \\ \text{ДУК} \rightarrow \text{ДУК} = \text{ДУК} \end{array}$$

инвертирование само удовлетворяет условию.  $H=13$   
 $P = H - D = 13 - 8 = 5$

$$\Rightarrow Z = -0,0110000 \quad \overset{5}{2} = -1100 \rightarrow -12(\text{т})$$



3993

$$X = 17,25 \quad Y = 5,375 \quad Z = X + Y = ?$$

$$n = 12[b] = m + k \quad k = 4[b] \quad m = 8[b]$$

m - мантисса

k - эскалаторность

$$\begin{array}{r|l} 0,25 & 2 \\ \hline 0,05 & 2 \\ \hline 1 & 0 \end{array} \quad 17 = 10001$$

$$X = 10001,01 \cdot 2^5 \rightarrow H = 8+5=13$$

$$Y = 5,375$$

$$0,375 \cdot 2 = 0,750$$

$$0,750 \cdot 2 = 1,5$$

$$0,5 \cdot 2 = 1,0$$

$$Y = 101,011 = 0,101011 \cdot 2^3 \Rightarrow H = 8+3=11$$

$$13 > 11$$

$$\Rightarrow Y = 0,00101011 \Rightarrow H = 13$$

$$\begin{array}{r} (0,1000101) \\ + (0,0010101) \end{array}$$

$$\begin{array}{r} X \quad 0 \mid 1101 \mid 1000101 \\ + \quad 0,1000101 \\ Y \quad 0 \mid 1101 \mid 0010101 \\ + \quad 0,0010101 \\ \hline \end{array}$$

$$Z = 0,1011010 \cdot 2^5 = 10110,10 = 22,5_{(10)}$$



3994

$$X = 0,53125 \quad Y = 0,15625 \quad Z = X + Y = ?$$

$$n = 12 [b]$$

$$k = 4b$$

$$m = 8b$$

$$0,53125 \cdot 2 = 1,06250$$

$$0,06250 \cdot 2 = 0,12500$$

$$0,12500 \cdot 2 = 0,25000$$

$$0,25000 \cdot 2 = 0,50000$$

$$0,5 \cdot 2 = 1,0$$

$$0,10001 = X \quad H=8 \quad 0|0000|1000100$$

$$0,15625 \cdot 2 = 0,31250$$

~~$$0,31250 \cdot 2 = 0,62500$$~~

~~$$0,62500 \cdot 2 = 1,25000$$~~

$$0,15625 \cdot 2 = 0,31250$$

$$0,31250 \cdot 2 = 0,62500$$

$$0,62500 \cdot 2 = 1,25000$$

$$0,25000 \cdot 2 = 0,50000$$

$$0,5 \cdot 2 = 1$$

$$0,00101 = Y \quad H=8 \quad 0|1000|0010100$$

$$Z = 1000100$$

$$+ 0010100$$

$$0,1011000$$

$$= 0,1011_{(2)}$$

$$0,6875_{(10)}$$

$$\frac{1}{8} + \frac{1}{8} = \frac{1}{4}$$



30g 5

$$X=30 \quad Y=5 \quad Z=X+Y$$

$$n=12b$$

$$k=4b$$

$$m=8b$$

$$30:2=15(0)$$

$$15:2=7(1)$$

$$7:2=3(1)$$

$$3:2=1(1)$$

$$1:2=0(1)$$

$$X=0, 11110. 2^5 = 11110 \quad H=13$$

$$Y=0, 101. 2^5 = 101 = H=13$$

$$\begin{array}{r} X \quad 0 \quad 1101 \quad 1111000 \\ Y \quad 0 \quad 1101 \quad 0010100 \end{array}$$

$$\begin{array}{r} 1111000 \\ + 0010100 \\ \hline 10001100 \end{array}$$

10001100  $\Rightarrow$  представление

целого числа

$$0, 1000110. 2^6 = 1000110 \\ = 35(10)$$

$$L \text{ или } H=13+1=14$$

$$P=H-D=14-8=6$$



2006

$$X = -71 \quad Y = 49 \quad Z = X + Y$$

$$n = 126$$

$$m = 86$$

$$W = 40$$

$$71:2=35(1)$$

$$49:2 = 24(1)$$

$$35:2=17(1)$$

2	4	:	2	=	1	2	(0)
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$17; 2 = 8 \quad (1)$

$$12: \lambda = 6 \quad (0)$$

$$8: \lambda = 4(0)$$

$$6:2=3(0)$$

$$4:2 = 2(0)$$

$$3: \lambda = 1 \quad (1)$$

$$2:2 = \text{LCOM}$$

$$1: \lambda = 0 \quad (1)$$

$$1: \lambda = O(L)$$

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$0, 100011$ .  $2^7 = 1000111$   $H = 8 + 7 = 15$

① 110061    2<sup>6</sup> = 110001    2 H = 8 + 7 = 15

$$0,0110001 \cdot 2^7 = 110001$$

X      1 | 1 1 1 1 | 1 0 0 0 1 1 1 → ⊗

y     0 | 1 1 1 1 | 0 1 1 0 0 0 1    ⌋

⊕

1) 0 1 1 0 0 1

$$\begin{array}{r} 1 \ 0 \ 1 \ 1 \ 0 \ 0 \ 1 \\ + \ 0 \ 0 \ 1 \ 1 \ 0 \ 0 \ 0 \ 1 \\ \hline 1 \ 1 \ 0 \ 1 \ 0 \ 1 \ 0 \end{array}$$

1	1	0	1	0	1	0
0	0	1	0	1	0	1
						1

$$\underline{L} \quad 0010110$$
$$16+4+2 = \boxed{22}$$



3ag 7

$$X = 10,5 \quad Y = 99,625$$

$$n = 12b$$

$$k = 4b$$

$$m = 8b$$

$$X = 1010,1 \quad 0,10101 \cdot 2^4 = 1010,1 \quad H = 8+4=12$$

$$99:2 = 49 (1)$$

$$49:2 = 24 (1)$$

$$24:2 = 12 (0)$$

$$12:2 = 6 (0)$$

$$6:2 = 3 (0)$$

$$3:2 = 1 (1)$$

$$1:2 = 0 (1)$$

$$0,625 \cdot 2 = 1,250$$

$$0,25 \cdot 2 = 0,5$$

$$0,5 \cdot 2 = 1$$

$$Y = 1100011,101 = 0,1100011101 \cdot 2^7 \quad H = 7+8=15$$

$$X = 0,00010101 \cdot 2^7 \quad H = 7+8=15$$

$$X = 0 \mid 1 \mid 1 \mid 1 \mid 1 \mid 0001010$$

$$Y = 0 \mid 1 \mid 1 \mid 1 \mid 1 \mid 1100011$$

$$0001010$$

$$+ 1100011$$

$$\hline 1101101 = 109_{(10)}$$