Волков Григорий P3132 В-80

A = 5.8 B = 0.091

Деление в формате Ф1

A = 5.8 = (5.(C))16 ≈ (0.5D)16 \* 161

XA=64+1=65

|  |  |  |
| --- | --- | --- |
| 0 | 1000001 | 01011101 |

B = 0.091 = (0.174…)16 = (0.17)16 \* 160

XB=64+0=64

|  |  |  |
| --- | --- | --- |
| 0 | 1000000 | 00010111 |

XC = XA – XB + d = 65 – 64 + 64 = 65

Pc = XC – d = 65 – 64 = 1

|  |  |  |  |
| --- | --- | --- | --- |
| N шага | Действие | Делимое | Частное |
| 0 | MA  -[MB]доп  R0  МА →4  -[MB]доп  R0 | 001011101  111101001  001000110  000000101  111101001  111101110 | 00000000  R0 > 0  11010000  11010000 |
| 1 | ←R0  MB  R1 | 111011101  000010111  111110100 | 10100000  10100000 |
| 2 | ←R1  MB  R2 | 111101001  000010111  000000000 | 01000000  01000001 |
| 3 | ←R2  -[MB]доп  R3 | 000000000  111101001  111101001 | 10000010  10000010 |
| 4 | ←R3  MB  R4 | 111010011  000010111  111101010 | 00000100  00000100 |
| 5 | ←R4  MB  R5 | 111010100  000010111  111101011 | 00001000  00001000 |
| 6 | ←R5  MB  R6 | 111010110  000010111  111101101 | 00010000  00010000 |
| 7 | ←R6  MB  R7 | 111011010  000010111  111110001 | 00100000  00100000 |
| 8 | ←R7  MB  R8 | 111100010  000010111  111111001 | 01000000  01000000 |

C\*=(4.0)16\*161=(40)16=6410

CT = 63.7362637

ΔC= CT – C\* = 63.7362637 – 64 = -0.26373626

δC=|ΔC/ CT|\*100%=|-0.26373626/ 63.7362637|\*100%=0.41%

Погрешность вызвана неточным представлением операндов.

Деление в формате Ф2

A = 5.8 = (101.11001100)2 ≈ (0.10111001)2 \* 23

XA=128+3=131

|  |  |  |
| --- | --- | --- |
| 0 | 10000011 | 0111001 |

B = 0.091 = (0.00010111010)2 = (0.10111010)16 \* 2-3

XB=128-3=125

|  |  |  |
| --- | --- | --- |
| 0 | 01111101 | 0111010 |

XC = XA – XB + d = 131– 125+ 128 = 134

Pc = XC – d = 134 – 128 = 6

|  |  |  |  |
| --- | --- | --- | --- |
| N шага | Действие | Делимое | Частное |
| 0 | MA  -[MB]доп  R0 | 010111001  101000110  111111111 | 00000000  00000000 |
| 1 | ←R0  MB  R1 | 111111110  010111010  010111000 | 00000000  00000001 |
| 2 | ←R1  -[MB]доп  R2 | 101110000  101000110  010110110 | 00000010  00000011 |
| 3 | ←R2  -[MB]доп  R3 | 101101100  101000110  010110010 | 00000110  00000111 |
| 4 | ←R3  -[MB]доп  R4 | 101100100  101000110  010101010 | 00001110  00001111 |
| 5 | ←R4  -[MB]доп  R5 | 101010100  101000110  010011010 | 00011110  00011111 |
| 6 | ←R5  -[MB]доп  R6 | 100110100  101000110  001111010 | 00111110  00111111 |
| 7 | ←R6  -[MB]доп  R7 | 011110100  101000110  000111010 | 01111110  01111111 |
| 8 | ←R7  -[MB]доп  R8 | 001110100  101000110  110111010 | 11111110  11111110  011111110 |

C\*=(0.1111111)16\*26=(111111.1)16=63.510

CT = 63.7362637

ΔC= CT – C\* = 63.7362637 – 63.5 = 0.2362637

δC=|ΔC/ CT|\*100%=|0.2362637 / 63.7362637|\*100%=0.37%

Погрешность вызвана неточным представлением операндов.