**Домашнее задание №8 ДЕЛЕНИЕ ЧИСЕЛ С ПЛАВАЮЩЕЙ ЗАПЯТОЙ**

**Деление в формате *Ф1*.**

*А* = 8,5 = (8.8)16 = (0.88)16·161

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |

*В* = 0,011 = (0.02D)16 = (0.2D)16·16-1

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 1 |

*XC* = *XA – XB + d*

*XC* = 1 –(-1) +64 = 66

P*C* = 2

|  |  |  |  |
| --- | --- | --- | --- |
| **N шага** | **Действие** | **Делимое** | **Частное** |
| **0** | *МА*  [-*МB*]доп  *R0*  *МА* →4  [-*МB*]доп  *R0* | **0 1 0 0 0 1 0 0 0**  **1 1 1 0 1 0 0 1 1**  **0 0 1 0 1 1 0 1 1**  **0 0 0 0 0 1 0 0 0**  **1 1 1 0 1 0 0 1 1**  **1 1 1 0 1 1 0 1 1** | **0 0 0 0 0 0 0 0**  **R0>0**  **1 0 0 0 0 0 0 0**  **1 0 0 0 0 0 0 0** |
| **1** | ←*R0*  *МB* пр  *R1* | **1 1 0 1 1 0 1 1 1**  **0 0 0 1 0 1 1 0 1**  **1 1 1 1 0 0 1 0 0** | **0 0 0 0 0 0 0 0**  **0 0 0 0 0 0 0 0** |
| **2** | ←*R1*  *МB* пр  *R2* | **1 1 1 0 0 1 0 0 0**  **0 0 0 1 0 1 1 0 1**  **1 1 1 1 1 0 1 0 1** | **0 0 0 0 0 0 0 0**  **0 0 0 0 0 0 0 0** |
| **3** | ←R2  *МB* пр  R3 | **1 1 1 1 0 1 0 1 0**  **0 0 0 1 0 1 1 0 1**  **0 0 0 0 1 0 1 1 1** | **0 0 0 0 0 0 0 0**  **0 0 0 0 0 0 0 1** |
| **4** | ←*R3*  [-*МB*]доп  *R4* | **0 0 0 1 0 1 1 1 0**  **1 1 1 0 1 0 0 1 1**  **0 0 0 0 0 0 0 0 1** | **0 0 0 0 0 0 1 0**  **0 0 0 0 0 0 1 1** |
| **5** | ←*R4*  [-*МB*]доп  *R5* | **0 0 0 0 0 0 0 1 0**  **1 1 1 0 1 0 0 1 1**  **1 1 1 0 1 0 1 0 1** | **0 0 0 0 0 1 1 0**  **0 0 0 0 0 1 1 0** |
| **6** | ←*R*5  *МB* пр  *R6* | **1 1 0 1 0 1 0 1 0**  **0 0 0 1 0 1 1 0 1**  **1 1 1 0 1 0 1 1 1** | **0 0 0 0 1 1 0 0**  **0 0 0 0 1 1 0 0** |
| **7** | ←*R6*  *МB* пр  *R7* | **1 1 0 1 0 1 1 1 0**  **0 0 0 1 0 1 1 0 1**  **1 1 1 0 1 1 0 1 1** | **0 0 0 1 1 0 0 0**  **0 0 0 1 1 0 0 0** |
| **8** | ←*R7*  *МB* пр  *R8* | **1 1 0 1 1 0 1 1 0**  **0 0 0 1 0 1 1 0 1**  **1 1 1 1 0 0 0 1 1** | **0 0 1 1 0 0 0 0**  **0 0 1 1 0 0 0 0** |

*С\** =(0.3)16·163 = (300)16 = 768

СТ = 772,73

Δ*С* = *С*Т - *С*\* = 772,73 – 768 = 4,73,

δ*С* = · 100% = · 100% = 0,61%.

**Деление в формате *Ф2*.**

*А* = 8,5 = (1000.1)2 = (0.10001)2·24

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |

*В* = 0,011 = (0.00000010110100)2 = (0.10110100)2·2-6

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 0 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 |

*XC* = *XA – XB + d*

*XC* = 4 –(-6) +128 = 138

P*C* = 10

|  |  |  |  |
| --- | --- | --- | --- |
| **N шага** | **Действие** | **Делимое** | **Частное** |
| **0** | *МА*  [-*МB*]доп  *R*0 | **0 1 0 0 0 1 0 0 0**  **1 0 1 0 0 1 1 0 0**  **1 1 1 0 1 0 1 0 0** | **0 0 0 0 0 0 0 0**  **0 0 0 0 0 0 0 0** |
| **1** | ←*R*0  *МB* пр  *R*1 | **1 1 0 1 0 1 0 0 0**  **0 1 0 1 1 0 1 0 0**  **0 0 1 0 1 1 1 0 0** | **0 0 0 0 0 0 0 0**  **0 0 0 0 0 0 0 1** |
| **2** | ←*R*1  [-*МB*]доп  *R*2 | **0 1 0 1 1 1 0 0 0**  **1 0 1 0 0 1 1 0 0**  **0 0 0 0 0 0 1 0 0** | **0 0 0 0 0 0 1 0**  **0 0 0 0 0 0 1 1** |
| **3** | ←*R*2  [-*МB*]доп  *R*3 | **0 0 0 0 0 1 0 0 0**  **1 0 1 0 0 1 1 0 0**  **1 0 1 0 1 0 1 0 0** | **0 0 0 0 0 1 1 0**  **0 0 0 0 0 1 1 0** |
| **4** | ←R3  *МB* пр  *R*4 | **0 1 0 1 0 1 0 0 0**  **0 1 0 1 1 0 1 0 0**  **1 0 1 0 1 1 1 0 0** | **0 0 0 0 1 1 0 0**  **0 0 0 0 1 1 0 0** |
| **5** | ←*R*4  *МB* пр  *R*5 | **0 1 0 1 1 1 0 0 0**  **0 1 0 1 1 0 1 0 0**  **1 0 1 1 0 1 1 0 0** | **0 0 0 1 1 0 0 0**  **0 0 0 1 1 0 0 0** |
| **6** | ←*R*5  *МB* пр  *R*6 | **0 1 1 0 1 1 0 0 0**  **0 1 0 1 1 0 1 0 0**  **1 1 0 0 0 1 1 0 0** | **0 0 1 1 0 0 0 0**  **0 0 1 1 0 0 0 0** |
| **7** | ←*R*6  *МB* пр  *R*7 | **1 0 0 0 1 1 0 0 0**  **0 1 0 1 1 0 1 0 0**  **1 1 1 0 0 1 1 0 0** | **0 1 1 0 0 0 0 0**  **0 1 1 0 0 0 0 0** |

*С\** =(0.11)2·210 = 768

СТ = 772,73

Δ*С* = *С*Т - *С*\* = 772,73 – 768 = 4,73,

δ*С* = · 100% = · 100% = 0,61%.

Погрешности вызваны неточным представлением операндов и, в данной ситуации, совпали.