ДЗ 3; Храбров Артём Алексеевич Р3115; Вариант 85; А = 39; В = 41

Задание 1

*А* = 39, *В* = 41.

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *А* > 0, *B* > 0. | | | | | | | | | Интерпретации | | | |
|  |  |  |  |  |  |  |  |  |  | Знаковая |  | Беззнаковая |
| *A*пр. | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 1 |  | 39 |  | 39 |
| *B*пр. | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 |  | 41 |  | 41 |
| *C*доп. | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 |  |  |  | 254? |
| *C*пр. | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |  | -2? |  |  |

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| CF=1 | ZF=0 | PF=0 | AF=1 | SF=1 | OF=1 |

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| Для ЗИ результат неверный, произошло переполнение. Для БЗИ результат неверный из-а заёма за пределами формата. |

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| *А* < 0, *B* > 0. | | | | | | | | | Интерпретации | | | |
|  |  |  |  |  |  |  |  |  |  | Знаковая |  | Беззнаковая |
| *A*доп. | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 |  | -39 |  | 217 |
| *B*пр. | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 |  | 41 |  | 41 |
| *C*доп. | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 |  |  |  | 176 |
| *C*пр. | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 |  | -80 |  |  |

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| CF=0 | ZF=0 | PF=1 | AF=0 | SF=1 | OF=0 |

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| *А* > 0, *B* < 0. | | | | | | | | | Интерпретации | | | |
|  |  |  |  |  |  |  |  |  |  | Знаковая |  | Беззнаковая |
| *A*пр. | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 1 |  | 39 |  | 39 |
| *B*доп. | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 |  | -41 |  | 215 |
| *C*пр. | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 |  | 80 |  | 80? |

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|  | CF=1 | ZF=0 | PF=1 | AF=0 | SF=0 | OF=0 |  |
| Для БЗИ результат неверный из-за заёма за пределами формата. | | | | | | | |

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| *А* < 0, *B* < 0. | | | | | | | | | Интерпретации | | | |
|  |  |  |  |  |  |  |  |  |  | Знаковая |  | Беззнаковая |
| *A*доп. | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 |  | -39 |  | 217 |
| *B*доп. | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 |  | -41 |  | 215 |
| *C*пр. | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |  | 2? |  | 2 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| CF=0 | ZF=0 | PF=0 | AF=0 | SF=0 | OF=1 |

Для ЗИ результат неверный из-за переполнения.

Задание 2

Правило для подбора выглядит следующим образом:

*А + В* > 128, значит 128 – *А < В* < 127

*А* = 39 *В* = 96

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| *А* < 0, *B* > 0. | | | | | | | | | Интерпретации | | | |
|  |  |  |  |  |  |  |  |  |  | Знаковая |  | Беззнаковая |
| *A*доп. | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 |  | -39 |  | 217 |
| *B*пр. | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |  | 96 |  | 96 |
| *C*пр. | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 |  | 121? |  | 121 |

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|  | CF=0 | ZF=0 | PF=0 | AF=0 | SF=0 | OF=1 |  |
| Для ЗИ результат неверный из-за переполнения. | | | | | | | |

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| *А* > 0, *B* < 0. | | | | | | | | | Интерпретации | | | |
|  |  |  |  |  |  |  |  |  |  | Знаковая |  | Беззнаковая |
| *A*пр. | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 1 |  | 39 |  | 39 |
| *B*доп. | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |  | -96 |  | 160 |
| *C*доп. | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 |  |  |  | 135? |
| *C*пр. | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 |  | -121? |  |  |

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| CF=1 | ZF=0 | PF=1 | AF=0 | SF=1 | OF=1 |

Для ЗИ неверный результат тк. произошло переполнение. Для БЗИ результат неверный тк. Произошел заём из старшего разряда.

Задание 3

Значение числа *В* фиксируем *(В* = 41), а значение *А* подбираем согласно формуле *А + В* = 128, благодаря которой при вычитании из положительного числа отрицательного будет фиксироваться переполнение, а при вычитании из отрицательного числа положительного не будет. Тогда *А* = 87.

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| *А* > 0, *B* < 0. | | | | | | | | | Интерпретации | | | |
|  |  |  |  |  |  |  |  |  |  | Знаковая |  | Беззнаковая |
| *A*пр. | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 |  | 87 |  | 87 |
| *B*доп. | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 |  | -41 |  | 215 |
| *C*пр*.* | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |  | -128? |  | 128? |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| CF=1 | ZF=0 | PF=0 | AF=0 | SF=1 | OF=1 |

Результат БЗИ неверный тк. Произошёл заём. Для ЗИ результат некорректен из-за переполнения.

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| *А* < 0, *B* > 0. | | | | | | | | | Интерпретации | | | |
|  |  |  |  |  |  |  |  |  |  | Знаковая |  | Беззнаковая |
| *A*доп. | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 |  | -87 |  | 169 |
| *B*пр. | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 |  | 41 |  | 41 |
| *C*пр. | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |  | -128 |  | 128 |

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| CF=0 | ZF=0 | PF=0 | AF=0 | SF=1 | OF=0 |
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