① -11×13

$A_{补} = 110101$

$B_{补} = 001101$

$-B_{补} = 110011$

$2B_{补} = 011010$

$-2B_{补} = 100110$

B: 001101

A: 0?0?0?

+B 000000 001101

+B 000000 110100

−B 111100 110000

R: 111101110001

1 1 0 1 0 1 0

1 1 0 1 0 1

1 1 0 1 0 1

验算: $R_{补} = 000010001111 = 143 = 11 \times 13$

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② 12×-13

$A_{补} = 001100$

$B_{补} = 110011$

$-B_{补} = 001101$

$2B_{补} = 100110$

$-2B_{补} = 011010$

B: 110011

A: 0?0?0?

000000 000000

−B 000000 001101

+B 111100 11

R: 111101100100

0 0 1 1 0 0 0

0 0 1 1 0 0

0 0 1 1 0 0

验算: $R_{补} = 000010011100 = 156 = 12 \times 13$

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③ 23×21

$A_{补} = 000\,10111$

$B_{补} = 000\,10101$

$-B_{补} = 111\,01011$

$2B_{补} = 001\,01010$

$-2B_{补} = 110\,10110$

0000 0000 | 0001 0111 . 0 <1, 1, 0>

−B 1110 1011

1110 1011 0001 0111 . 0

→ 1111 1010 1100 0101 . 1 <0, 1, 1>

+2B 0010 1010

0010 0100 1000 1010 . 1

→ 0000 1001 0011 0001 . 0 <0, 1, 0>

+B 0001 0101

0001 1110 0100 0110 . 0

→ 0000 0111 1001 0011 . 0 <0, 0, 0>

→ 0000 0011 1100 1001

验算: $23 \times 21 = 483 = 111100011$

④ -21×11

$A_{补}=11101011$

$B_{补}=00001011$

$-B_{补}=11110101$

$2B_{补}=00010110$

$-2B_{补}=11101010$

00000000 | 11101011 | 0 <1,1,0>

$-B$ 11110101

11110101 111 01011

→ 11111101 0 | 1 | 1 1010 1 <1,0,1>

$-B$ 11110101

11110010 0111 1010

→ 11111100 1001 | 1110 1 <1,0,1>

$-B$ 11110101

11110001 1001 1110

→ 11111110 0011 00 | 1 | 1 1 <1,1,1>

→ 11111111 0001 1001

验算：$R_{补}=11100111=231=21\times11$

⑤ -11×37

$A_{补}=11110101$

$B_{补}=00100101$

$-B_{补}=11011011$

$2B_{补}=01001010$

$-2B_{补}=10110110$

0000 0000 | 1111 0101 0 <0,1,0>

$+B$ 0010 0101

0010 0101 1111 0101

→ 0000 1001 0 | 1 | 1 1 0 1 0 <0,1,0>

$+B$ 00100101

0010 1110 0111 1101

→ 0 0001 0111 1001 | 1 1 1 0 <1,1,0>

$-B$ 11011011

11 1001 10 0001 1111

→ 11 1110 01 1010 0 | 1 | 1 <1,1,1>

→ 11111111 0011 0100 1

$2B_{补}=00100101$

$-2B_{补}=11011011$

⑥ 13×-21

$A_{补}=00001101$

$B_{补}=11101011$

$-B_{补}=00010101$

$2B_{补}=11010110$

$-2B_{补}=00101010$

0000 0000 | 0000 1101 0 <0,1,0>

$+B$ 11101011

1110 1011 0000 1101

→ 11 1110 1011 | 0 | 0 0 1 1 0 <1,1,0>

$-B$ 00010101

0001 1111 1100 0011

→ 0000 0011 1111 | 0 0 0 0 1 <0,0,1>

$+B$ 11101011

1110 1110 1111 0000

→ 11 1111 0111 0111 00 0 <0,0,0>

→ 11111111 0111 0111

$2B_{补}=11010110$

$-2B_{补}=00101010$