

multiplicand = 0000 0101
 multiplier = 0000 1010

| step | action | multiplicand | product |
|------|------------------------|--------------|------------------------------|
| 0 | initial | 0000 0101 | 0000 0000 0000 1010 0 |
| 1 | a: 00→no operation | 0000 0101 | 0000 0000 0000 1010 0 |
| | b: shift right product | 0000 0101 | 0000 0000 0000 0101 0 |
| 2 | a: 10→prod = ls - mc | 0000 0101 | 1111 1011 0000 0101 0 |
| | b: shift right product | 0000 0101 | 1111 1101 1000 0010 1 |
| 3 | a: 01→prod = ls + mc | 0000 0101 | 1111 0010 1000 0010 1 |
| | b: shift right product | 0000 0101 | 1111 1001 0100 0001 0 |
| 4 | a: 10→prod = ls - mc | 0000 0101 | 0000 0100 0100 0001 0 |
| | b: shift right product | 0000 0101 | 0000 0010 0010 0000 1 |
| 5 | a: 01→prod = ls + mc | 0000 0101 | 0000 0111 0010 0000 1 |
| | b: shift right product | 0000 0101 | 0000 0011 1001 0000 0 |
| 6 | a: 00→no operation | 0000 0101 | 0000 0011 1001 0000 0 |
| | b: shift right product | 0000 0101 | 0000 0001 1100 1000 0 |
| 7 | a: 00→no operation | 0000 0101 | 0000 0001 1100 1000 0 |
| | b: shift right product | 0000 0101 | 0000 0000 1110 0100 0 |
| 8 | a: 00→no operation | 0000 0101 | 0000 0000 1110 0100 0 |
| | b: shift right product | 0000 0101 | 0000 0000 0111 0010 0 |
| | | | |

multiplicand = 0000 0110
multiplier = 0000 0111

| step | action | multiplicand | product |
|------|------------------------|--------------|------------------------------|
| 0 | initial | 0000 0110 | 0000 0000 0000 0111 0 |
| 1 | a: 10→prod = ls - mc | 0000 0110 | 1111 1010 0000 0111 0 |
| | b: shift right product | 0000 0110 | 1111 1101 0000 0011 1 |
| 2 | a: 11→no operation | 0000 0110 | 1111 1101 0000 0011 1 |
| | b: shift right product | 0000 0110 | 1111 1110 1000 0001 1 |
| 3 | a: 11→no operation | 0000 0110 | 1111 1110 1000 0001 1 |
| | b: shift right product | 0000 0110 | 1111 1111 0100 0000 1 |
| 4 | a: 01→prod = ls + mc | 0000 0110 | 1111 1001 0100 0000 1 |
| | b: shift right product | 0000 0110 | 1111 1100 1010 0000 0 |
| 5 | a: 00→no operation | 0000 0110 | 1111 1100 1010 0000 0 |
| | b: shift right product | 0000 0110 | 1111 1110 0101 0000 0 |
| 6 | a: 00→no operation | 0000 0110 | 1111 1110 0101 0000 0 |
| | b: shift right product | 0000 0110 | 1111 1111 0010 1000 0 |
| 7 | a: 00→no operation | 0000 0110 | 1111 1111 0010 1000 0 |
| | b: shift right product | 0000 0110 | 1111 1111 1001 0100 0 |
| 8 | a: 00→no operation | 0000 0110 | 1111 1111 1001 0100 0 |
| | b: shift right product | 0000 0110 | 1111 1111 1100 1010 0 |
| | | | |

multiplicand: 0001 0001
 multiplier: 1111 1010

| step | action | multiplicand | product |
|------|------------------------|--------------|------------------------------|
| 0 | initial | 0001 0001 | 1111 1111 1111 1010 0 |
| 1 | a: 00→no operation | 0001 0001 | 1111 1111 1111 1010 0 |
| | b: shift right product | 0001 0001 | 1111 1111 1111 1101 0 |
| 2 | a: 10→prod = ls - mc | 0001 0001 | 1110 1110 1111 1101 0 |
| | b: shift right product | 0001 0001 | 1111 0111 0111 1110 1 |
| 3 | a: 01→prod = ls + mc | 0001 0001 | 1110 0110 0111 1110 1 |
| | b: shift right product | 0001 0001 | 1111 0011 0011 1111 0 |
| 4 | a: 10→prod = ls - mc | 0001 0001 | 1110 0010 0011 1111 0 |
| | b: shift right product | 0001 0001 | 1111 0001 0001 1111 1 |
| 5 | a: 11→no operation | 0001 0001 | 1111 0001 0001 1111 1 |
| | b: shift right product | 0001 0001 | 1111 1000 1000 1111 1 |
| 6 | a: 11→no operation | 0001 0001 | 1111 1000 1000 1111 1 |
| | b: shift right product | 0001 0001 | 1111 1100 0100 0111 1 |
| 7 | a: 11→no operation | 0001 0001 | 1111 1100 0100 0111 1 |
| | b: shift right product | 0001 0001 | 1111 1110 0010 0011 1 |
| 8 | a: 11→no operation | 0001 0001 | 1111 1110 0010 0011 1 |
| | b: shift right product | 0001 0001 | 1111 1111 0001 0001 1 |
| | | | |

multiplicand: 1111 0010
 multiplier: 0000 0100

| step | action | multiplicand | product |
|------|------------------------|--------------|------------------------------|
| 0 | initial | 1111 0010 | 0000 0000 0000 0100 0 |
| 1 | a: 00→no operation | 1111 0010 | 0000 0000 0000 0100 0 |
| | b: shift product right | 1111 0010 | 0000 0000 0000 0010 0 |
| 2 | a: 00→no operation | 1111 0010 | 0000 0000 0000 0010 0 |
| | b: shift product right | 1111 0010 | 0000 0000 0000 0001 0 |
| 3 | a: 10→prod = ls - mc | 1111 0010 | 1111 0010 0000 0001 0 |
| | b: shift product right | 1111 0010 | 1111 1001 0000 0000 1 |
| 4 | a: 01→prod = ls + mc | 1111 0010 | 1110 1011 0000 0000 1 |
| | b: shift product right | 1111 0010 | 1111 0101 1000 0000 0 |
| 5 | a: 00→no operation | 1111 0010 | 1111 0101 1000 0000 0 |
| | b: shift product right | 1111 0010 | 1111 1010 1100 0000 0 |
| 6 | a: 00→no operation | 1111 0010 | 1111 1010 1100 0000 0 |
| | b: shift product right | 1111 0010 | 1111 1101 0110 0000 0 |
| 7 | a: 00→no operation | 1111 0010 | 1111 1101 0110 0000 0 |
| | b: shift product right | 1111 0010 | 1111 1110 1011 0000 0 |
| 8 | a: 00→no operation | 1111 0010 | 1111 1110 1011 0000 0 |
| | b: shift product right | 1111 0010 | 1111 1111 0101 1000 0 |
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