X = 0x83, 10000011

Y = 0x4D, 01001101

|  |  |  |
| --- | --- | --- |
| **Expression** | **Value** | **Computation** |
| x&y | 0x01 | 10000011  & 01001101  ------------------  00000001 |
| ~x | ~y | 0xFE | ~~10000011~~  01111100  ~~01001101~~  | 10110010  ------------------  11111110 |
| x & !y | 0x00 | 10000011  ~~01001101~~  & 00000000  ------------------  00000000 |
| !x || !y | 0x00 | 0 or 0 -> 0 |
| x && ~y | 0x01 | not 0 and not 0 -> 1 |
| x << 3 | 0x18 | ~~10000011~~  ------------------  00011000 |
| x >> 2 (arithmetic) | 0xE0 | ~~10000011~~  ------------------  11100000 |