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## **Bitwise NOT**

The **NOT** bitwise operation takes one set of bits, and for each bit returns 0 if the bit is 1, and 1 if the bit is 0.

```
~ 0 → -1
~ 1 → -2
```

When performing NOT on an integer, each bit of the integer is inverted.

```
~ 5 // gives -6

// At the bit level:

// ~ 0000 0101 (5)

// = 1111 1010 (-6)
```

If you're unsure why the resulting number is negative in this example, it's because numbers are represented using two's complement. Read up on binary numbers here (/concept/binary-numbers).

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Next up: Bit Shifting → (/concept/bit-shift? course=fc1&section=bit-manipulation)

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