

# Operators

| Operator | Name           | Description   |
|----------|----------------|---|
| +        | Addition       | Adds two values   |
| -        | Subtraction    | Subtracts two values  |
| /        | Division       | Divides two values  |
| *        | Multiplication | Multiplies two values   |
| %        | Modulus        | Returns the division reminder   |
| ++       | Increment      | Increases value by 1  |
| --       | Decrement      | Decreases value by 1  |
| &        | And            | copies a bit to the result if it exists in both operands                  |
|          | Or             | copies a bit if it exists in either operand                               |
| ^        | Xor            | copies the bit if it is set in one operand but not both                   |
| ~        | Complement     | Flips bits  |
| <<       | Left Shift     | value is moved left by the number of bits specified by the right number.  |
| >>       | Right Shift    | value is moved right by the number of bits specified by the right number. |

## OR

14 = 0000 1110 (In Binary)  
20 = 0001 0100 (In Binary)  
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30 = 0001 1110 (14 | 30)

## And

14 = 0000 1110 (In Binary)  
20 = 0001 0100 (In Binary)  
-----  
04 = 0000 0100 (14 & 30)

## XOR

14 = 0000 1110 (In Binary)

20 = 0001 0100 (In Binary)

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26 = 0001 1010 ( $14 \wedge 20$ )

## Complement

26 = 0001 1010

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-27 = 1110 0101 ( $\sim 26$ )

## Left Shift

26 = 0001 1010

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52 = 0011 0100 ( $26 \ll 1$ )

## Right Shift

26 = 0001 1010

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13 = 0000 1101 ( $26 \gg 1$ )