PHP Arithmetic Operators

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| **Operator** | **Name** | **Description** | **Example** | **Result** |
| x + y | Addition | Sum of x and y | 2 + 2 | 4 |
| x - y | Subtraction | Difference of x and y | 5 - 2 | 3 |
| x \* y | Multiplication | Product of x and y | 5 \* 2 | 10 |
| x / y | Division | Quotient of x and y | 15 / 5 | 3 |
| x % y | Modulus | Remainder of x divided by y | 5 % 2 10 % 8 10 % 2 | 1 2 0 |
| - x | Negation | Opposite of x | - 2 |  |
| a . b | Concatenation | Concatenate two strings | "Hi" . "Ha" | HiHa |

PHP Assignment Operators

The basic assignment operator in PHP is "=". It means that the left operand gets set to the value of the expression on the right. That is, the value of "$x = 5" is 5.

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| **Assignment** | **Same as...** | **Description** |
| x = y | x = y | The left operand gets set to the value of the expression on the right |
| x += y | x = x + y | Addition |
| x -= y | x = x - y | Subtraction |
| x \*= y | x = x \* y | Multiplication |
| x /= y | x = x / y | Division |
| x %= y | x = x % y | Modulus |
| a .= b | a = a . b | Concatenate two strings |

PHP Incrementing/Decrementing Operators

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| **Operator** | **Name** | **Description** |
| ++ x | Pre-increment | Increments x by one, then returns x |
| x ++ | Post-increment | Returns x, then increments x by one |
| -- x | Pre-decrement | Decrements x by one, then returns x |
| x -- | Post-decrement | Returns x, then decrements x by one |

PHP Comparison Operators

Comparison operators allows you to compare two values:

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| **Operator** | **Name** | **Description** | **Example** |
| x == y | Equal | True if x is equal to y | 5==8 returns false |
| x === y | Identical | True if x is equal to y, and they are of same type | 5==="5" returns false |
| x != y | Not equal | True if x is not equal to y | 5!=8 returns true |
| x <> y | Not equal | True if x is not equal to y | 5<>8 returns true |
| x !== y | Not identical | True if x is not equal to y, or they are not of same type | 5!=="5" returns true |
| x > y | Greater than | True if x is greater than y | 5>8 returns false |
| x < y | Less than | True if x is less than y | 5<8 returns true |
| x >= y | Greater than or equal to | True if x is greater than or equal to y | 5>=8 returns false |
| x <= y | Less than or equal to | True if x is less than or equal to y | 5<=8 returns true |

PHP Logical Operators

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| **Operator** | **Name** | **Description** | **Example** |
| x and y | And | True if both x and y are true | x=6 y=3  (x < 10 and y > 1) returns true |
| x or y | Or | True if either or both x and y are true | x=6 y=3  (x==6 or y==5) returns true |
| x xor y | Xor | True if either x or y is true, but not both | x=6 y=3  (x==6 xor y==3) returns false |
| x && y | And | True if both x and y are true | x=6 y=3 (x < 10 && y > 1) returns true |
| x || y | Or | True if either or both x and y are true | x=6 y=3 (x==5 || y==5) returns false |
| ! x | Not | True if x is not true | x=6 y=3 !(x==y) returns true |

PHP Array Operators

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| **Operator** | **Name** | **Description** |
| x + y | Union | Union of x and y |
| x == y | Equality | True if x and y have the same key/value pairs |
| x === y | Identity | True if x and y have the same key/value pairs in the same order and are of the same type |
| x != y | Inequality | True if x is not equal to y |
| x <> y | Inequality | True if x is not equal to y |
| x !== y | Non-identity | True if x is not identical to y |