

PHP-Operators

[Back to ACP page](#)

Table of Contents

- [04.1080-php-Operators](#)
 - [PHP Arithmetic Operators](#)
 - [Example 1](#)
 - [PHP Assignment Operators](#)
 - [Example 2](#)
 - [PHP Comparison Operators](#)
 - [Example 3](#)
 - [PHP Increment-Decrement Operators](#)
 - [Example 4](#)
 - [PHP Logical Operators](#)
 - [Example 5](#)
 - [PHP String Operators](#)
 - [Example 6](#)
 - [Array Operators](#)
 - [Example 7](#)
 - [PHP Conditional Assignment Operators](#)
 - [Example 8](#)
 - [Document](#)
 - [Reference](#)

PHP Arithmetic Operators

The PHP arithmetic operators are used with numeric values to perform common arithmetical operations, such as addition, subtraction, multiplication etc.

```
<?php
$x = 10;
$y = 6;

// Addition
echo $x + $y; // Output: 16
echo "<br>";

// Subtraction
echo $x - $y; // Output: 4
echo "<br>";

// Multiplication
echo $x * $y; // Output: 60
echo "<br>";
```

```
// Division
echo $x / $y; // Output: 1.6666666666667
echo "<br>";

// Modulus
echo $x % $y; // Output: 4
echo "<br>";

// Exponentiation
echo $x ** $y; // Output: 1000000
echo "<br>";
```

?>

Arithmetic_Operators

The PHP arithmetic operators are used with numeric values to perform common arithmetical operations, such as addition, subtraction, multiplication etc.

```
16
4
60
1.6666666666667
4
1000000
```

Example 1

Result [View Example](#)

PHP Assignment Operators

The PHP assignment operators are used with numeric values to write a value to a variable.

```
<?php
$x = 10;    // Assignment
echo $x;    // Output: 10

echo "<br>";

$x = 20;
$x += 100;  // Addition
echo $x;    // Output: 120

echo "<br>";
```

```
$x = 50;
$x -= 30; // Subtraction
echo $x;  // Output: 20

echo "<br>";

$x = 5;
$x *= 6;  // Multiplication
echo $x;  // Output: 30

echo "<br>";

$x = 10;
$x /= 5;  // Division
echo $x;  // Output: 2

echo "<br>";

$x = 15;
$x %= 4;  // Modulus
echo $x;  // Output: 3
?>
```

Assignment Operators

The PHP assignment operators are used with numeric values to write a value to a variable.

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

```
10
120
20
30
2
3
```

Example 2

Result [View Example](#)

PHP Comparison Operators

The PHP comparison operators are used to compare two values (number or string):

<h2>Comparison_Operators</h2>

<p>The PHP comparison operators are used to compare two values (number or string): </p>

<?php

\$x = 100;

\$y = "100";

var_dump(\$x == \$y); // Equal: returns true because values are equal

echo "
";

var_dump(\$x === \$y); // Identical: returns false because types are not equal

echo "
";

var_dump(\$x != \$y); // Not equal: returns false because values are equal

echo "
";

var_dump(\$x <> \$y); // Not equal: returns false because values are equal

echo "
";

var_dump(\$x !== \$y); // Not identical: returns true because types are not equal

echo "
";

var_dump(\$x > \$y); // Greater than: returns false because \$x is not greater than \$y

echo "
";

var_dump(\$x < \$y); // Less than: returns false because \$x is not less than \$y

echo "
";

var_dump(\$x <= \$y); // Less than or equal to: returns true because \$x is less than or equal to \$y

echo "
";

var_dump(\$x >= \$y); // Greater than or equal to: returns true because \$x is greater than or equal to \$y

echo "
";

\$x = 5;

\$y = 10;

var_dump(\$x <=> \$y); // Spaceship: returns -1 because \$x is less than \$y

echo "
";

\$x = 10;

\$y = 10;

var_dump(\$x <=> \$y); // Spaceship: returns 0 because values are equal

echo "
";

\$x = 15;

\$y = 10;

var_dump(\$x <=> \$y); // Spaceship: returns +1 because \$x is greater than \$y

echo "
";

?>

Comparison_Operators

The PHP comparison operators are used to compare two values (number or string):

```
bool(true)
bool(false)
bool(false)
bool(false)
bool(true)
bool(false)
bool(false)
bool(true)
bool(true)
int(-1)
int(0)
int(1)
```

Example 3

Result [View Example](#)

PHP Increment-Decrement Operators

```
<h2>Increment-Decrement_Operators</h2>
```

```
<p>The PHP increment operators are used to increment a variable's value.
```

```
The PHP decrement operators are used to decrement a variable's value.</p>
```

```
<?php
```

```
    $x = 10;
    echo ++$x; // Output: 11
    echo "<br>";
    echo $x; // Output: 11
    echo "<br>";
    echo --$x; // Output: 10
    echo "<br>";
    echo $x; // Output: 10
    echo "<hr>";
    $x = 10;
    echo $x++; // Output: 10
    echo "<br>";
    echo $x; // Output: 11
    echo "<br>";
    echo $x--; // Output: 11
```

```
echo "<br>";  
echo $x; // Output: 10  
?>
```

Increment-Decrement_Operators

The PHP increment operators are used to increment a variable's value. The PHP decrement operators are used to decrement a variable's value.

```
11  
11  
10  
10
```

```
10  
11  
11  
10
```

Example 4

Result [View Example](#)

PHP Logical Operators

```
<h4>Logical_Operators</h4>  
<p>The PHP logical operators are used to combine conditional statements.  
</p>  
<?php  
    $x = 100;  
    $y = 50;  
  
    // and operator  
    if ($x == 100 and $y == 50) {  
        echo "Hello world!."<br>;  
    }  
  
    // or operator  
    if ($x == 100 or $y == 80) {  
        echo "Hello world!."<br>;  
    }  
  
    // xor operator  
    if ($x == 100 xor $y == 80) {  
        echo "Hello world!."<br>;
```

```
}

// not operator
if ($x !== 90) {
    echo "Hello world!" . "<br>";
}

// && operator
if ($x == 100 && $y == 50) {
    echo "Hello world!" . "<br>";
}

// || operator
if ($x == 100 || $y == 80) {
    echo "Hello world!" . "<br>";
}

?>
```

Logical_Operators

The PHP logical operators are used to combine conditional statements.

Hello world!
Hello world!
Hello world!
Hello world!
Hello world!
Hello world!

Example 5

Result [View Example](#)

PHP String Operators

```
<h2>String_Operators</h2>
<p>PHP has two operators that are specially designed for strings. </p>
<?php
    $txt1 = "Hello";
    $txt2 = " world!";
    // Concatenation
    echo $txt1 . $txt2;
    echo "<hr>";
    // Concatenation assignment
    $txt1 .= $txt2;
```

```
echo $txt1;  
?>
```

String_Operators

PHP has two operators that are specially designed for strings.

Hello world!

Hello world!

Example 6

Result [View Example](#)

Array Operators

Lorem ipsum dolor sit, amet consectetur adipisicing elit.

```
<h4>Array_Operators</h4>  
<p>The PHP array operators are used to compare arrays. </p>  
<?php  
    $x = array("a" => "red", "b" => "green");  
    $y = array("c" => "blue", "d" => "yellow");  
    // $y = array("a" => "red", "b" => "green");  
    // union  
    print_r($x + $y); // union of $x and $y  
    echo "<br>";  
    // equality  
    var_dump($x == $y); // Returns true if $x and $y have the same  
key/value pairs  
    echo "<br>";  
    // identity  
    var_dump($x === $y); // Returns true if $x and $y have the same  
key/value pairs in the same order and of the same types  
    echo "<br>";  
    // inequality  
    var_dump($x != $y); // Returns true if $x is not equal to $y  
    echo "<br>";  
    // inequality  
    var_dump($x <> $y); // Returns true if $x is not equal to $y  
    echo "<br>";  
    // non-identity  
    var_dump($x !== $y); // Returns true if $x is not identical to $y  
    echo "<br>";  
?>
```


Array_Operators

The PHP array operators are used to compare arrays.

```
Array ( [a] => red [b] => green [c] => blue [d] => yellow )
```

```
bool(false)
```

```
bool(false)
```

```
bool(true)
```

```
bool(true)
```

```
bool(true)
```

Example 7

Result [View Example](#)

PHP Conditional Assignment Operators

```
<h2>Conditional_Assignment_Operators</h2>
```

```
<p>The PHP conditional assignment operators are used to set a value depending on conditions:</p>
```

```
<?php
```

```
    // if empty($user) = TRUE, set $status = "anonymous"
    echo $status = (empty($user)) ? "anonymous" : "logged in";
    echo("<br>");
```

```
    $user = "John Doe";
    // if empty($user) = FALSE, set $status = "logged in"
    echo $status = (empty($user)) ? "anonymous" : "logged in";
```

```
    echo("<hr>");
    // variable $user is the value of $_GET['user']
    // and 'anonymous' if it does not exist
    echo $user = $_GET["user"] ?? "anonymous";
    echo("<br>");
```

```
    // variable $color is "red" if $color does not exist or is null
    echo $color = $color ?? "red";
```

```
?>
```

Conditional_Assignment_Operators

The PHP conditional assignment operators are used to set a value depending on conditions:

anonymous
logged in

anonymous
red

Example 8

Result [View Example](#)

Document

Document in project

You can [Download PDF](#) file.

Reference