

## Assignment - 1

Operator :-

- Special symbol perform special operations.
- Used to ~~so~~ execute the Program.

Types :-

- 1) Arithmetic operators
- 2) Assignment operators
- 3) Comparison operator
- 4) Logical operator
- 5) Bitwise operator.

1) Arithmetic operator :-

operator	Name	Example
+	Addition	$x + y$
-	Subtraction	$x - y$
*	Multiplication	$x * y$
/	Division	$x / y$
%	Modulus	$x \% y$

These are Arithmetic operators.

## 2) Assignment operators:-

operator	Example	
=	$x = 5$	$x = 5$
+=	$x += 3$	$x = x + 3$
-=	$x -= 3$	$x = x - 3$
*=	$x *= 5$	$x = x * 5$
/=	$x /= 5$	$x = x / 5$
%=	$x \% = 5$	$x = x \% 5$
&=	$x \& = 3$	$x = x \& 3$
!=	$x ! = 3$	$x = x ! = 3$
^=	$x \wedge = 3$	$x = x \wedge 3$
>>=	$x >> = 5$	$x = x >> 5$
<<=	$x << = 5$	$x = x << 5$

## Comparison operator:-

operator	Name	Example
==	Equal to	$x == y$
!=	Not equal to	$x ! = y$
>	Greater than	$x > y$
<	Less than	$x < y$
>=	Greater than or equal	$x > = y$
<=	less than equal	$x < = y$



#### 4) Logical operators:-

operators	Name	Example
&&	logical and	$x \& 5 \& 10$
	logical or	$x \& 5    x \& 4$
!	logical not	! ( $x \& 5 \& 10$ )

#### 5) Bitwise operators:-

operators	Name	Example
&	Bitwise AND	$x \& y$
	Bitwise OR	$x   y$
^	Bitwise inclusive	$x \wedge y$
~	complement	$x \sim y$
<<	left shift	$x \ll y$
>>	right shift	$x \gg y$

#### 6) Increment / Decrement operator:-

operator	Name	example
++	Post increment	$x++$
	Pre increment	$++x$
--	Post decrement	$x--$
	Pre decrement	$--x$

## \* Control Statements:-

Executed according to the smooth flow of Programs.

### Types:-

#### 1) Decision Making Statement:-

- If statements
- Switch statements

#### 2) Looping Statements:-

- do while
- while
- for loop

#### 3) Jump Statements:-

- Break statements
- continue statements

## \* Decision Making statements:-

### 1) If statement:-

- evaluated a condition
- Divided into two condition
- condition either true or false.

2) If-else statement :-

```
{ (condition)
  { statement;
}
else
{ statement;
}
```

\* Looping statement :-

- + execute code repeatedly
- + Execution instruction partile condition.

\* Types :-

- 1) For loop
- 2) while loop
- 3) do-while loop

\* Applications :-

- 1) Mathematical calculation
- 2) searching
- 2) searching
- 4) boxing