Operator

Date: / /

operator - in Java is a symbol which is used to perform operation

Ex- +, -, *, / etc.

∴ there are many type of operator ∴

		Category	Precedence
①	Unary operator -	postfix	X++, X--
		prefix	++X, --X, +X, -X
			~, !
②	Arithmatic operator.	multiplicative	* / %
		additive	+ -
③	shift	shift	<<, >>, >>>
④	Relational	Comparison	<>, <=, >=, instance of
		Equality	==, !=
⑤	Bitwise	AND	&
		exclusive OR	^
		inclusive OR	|
⑥	Logical	AND	&&
		logical OR	||
⑦	Ternary	ternary	? :
⑧	Assignment	assignment	=, +=, -=, /=, %=, &=, ^=, |=, <<=, >>=

Ex- +=, we can write if we have two operands a & b

a+=b OR a= a+b;

- Unary operator - Required only one operands & these operator perform various operation

- Increment / decrement
- negating an expression
- inverting the value of a boolean

- Arithmatic operator -

operator are used to perform addition, substraction, multiplication & division

Ex

```
class operator
{  public static void main(String[] args)
   int a=10;
   int b= 5;
   System.out.println( a+b);
   "   "   (a-b);
   System.out.println( a*b);
   "   "   (a/b);
}
```

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Shift :-

Left shift :-

This operater is used to shift all of the bits in a value to the left side of a specified no of times.

Ex

```
int a=10
int var = a<<1;
(left shift for 1)
```

binary no of 10 is 1010

```
1 0 1 0
↓ 0 1 0 0 → shift for 1
↓
binary no of 20 then
```

is 20

Right shift operater :-

move left operands value to right by the number of bits specified by the right operands.

* Logical :-

The logical && operator does not check the second condition if the first condition is false. It checks the second condition only when 1st is true.

* Bitwise :-

The bitwise operator always check both condition whether first condition is true or false.

* Assignment operator :-

It is use to assign the value on its right to the operand on its left :

Ex a+=4; (a=10) given

a = a+4

=10+4

* Ternary operator :-

It is the only conditional operator which takes three operands.