Operators & Assignment

1. Increment & decrement operators
2. Arithmetic operators
3. String concatenation operators
4. Relational Operators
5. Equality Operators
6. instanceof Operators
7. Bitwise Operators
8. Short circuit Operators
9. Type cast Operators
10. assignment Operators
11. Conditional Operators
12. new Operators
13. [ ] Operators
14. Precedence of java Operators
15. Evaluation order of java Operands
16. new Vs newInstance()
17. Instanceof Vs isInstance()
18. ClassNotFoundException Vs NoClassDefFoundError

Increment & Decrement operators:

Increment :-

- Pre-increment
- Post-increment

Pre-increment

++X

Example :

```
int x = 2;
y = + + x ;
S O P ( y ) ;  // 3
```

Post-increment

X++

Example :

```
int x = 2;
y = x + + ;
S O P ( y ) ;  // 2
```

Expression	Initial value of x	value of y	Final value of x
y = ++x	5	6	6
y = x++	5	5	6

Increment & Decrement operators:

Decrement :-

- Pre-decrement
- Post-decrement

Pre-decrement

- - X

Example :

```
int x = 2;
y = - - x ;
S O P ( y ) ;  // 1
```

Post-decrement

X - -

Example :

```
int x = 2;
y = x - - ;
S O P ( y ) ;  // 2
```

Expression	Initial value of x	value of y	Final value of x
y = - - x	5	4	4
y = x - -	5	5	4

Increment & Decrement operators:

1. We can not apply increment and decrement operator on value or constant.

Example:

```
int x = 2;
y = + + 2 ;
```

2. We can not apply increment and decrement operator on Final Variable.

Example:

```
final int x = 2;
y = + + x ;
```

3. We can not perform nesting of increment and decrement operator .

Example:

```
final int x = 2;
y = + + ( + + x ) ;
```

Increment & Decrement operators:

Note:

If we are applying any arithmetic operators b/w 2 operands 'a' & 'b' the result type is

max(int, type of a, type of b)

Example:

```
byte a = 10;
byte b = 20;
byte c  = a + b;
System.out.println(c);
```

X

byte byte

max(int, byte, byte)

int c = a + b;

Example:

```
byte b = 9;
b++;
System.out.println(b); //10
b = b + 1;
System.out.println(b);
```

X