Operators

Binary operators:

1. Arithmetic operator
   + - / *%

2. Relational operator
   < > <= >= == !=

3. Logical operator
   &&

Unary operator

1. Post increment a++;
2. Pre increment ++a;
3. Post decrement a--;
4. Pre decrement --a;

Arithmetic operators

+ - * / %
BODMAS rule
int a=10, b=4, c=2;
int z=b+a/c
=4+10/2
=4+5
=9

int x=b*a/c
=4*10/2
=4*5
=20

int y=(a+b)/c
=(4+10)/2
=14/2
=7

Relational operator

< > >= =< == !=

int a=10;
int b=10;

a<b; false
a>b; false
a<=b; true
a>=b; true
a!=b; false

Logical operator

And operator (&&)
&&,||

int a=10;
int b=10

(a<b)&&(a<=b) false
(a>=b)&&(a==b) true

&& operator

true	true	true
true	false	false
false	true	false
false	false	false

Or operator (||)

int a=10;
int b=10

(a<b)||(a<=b) true
(a>=b)&&(a==b) true

|| operator

True	True	True
True	False	True
False	True	True
False	False	False

Unary oprerator

Post increment	Pre increment	Post decrement	Pre decrement

int a=10;
int b=10;
 	
b=a++;
 	
\\b=10
\\a=11
 	
Value is assigned then it is incremented
	int a=10;
	int b=10;
	
	b=++a;
	
	\\b=11
	\\a=11
	
	Value is incremented then it is assigned
		int a=10;
		int b=10;
		
		b=a--;
		
		\\b=10
		\\a=9
		
		Value is assigned then it is decremented
			int a=10;
			int b=10;
			
			b=--a;
			
			\\b=9
			\\a=9
			
			Value is decremented then it is assigned

1. int a=10;
   int b=(a++)+(a);
   System.out.println(a); \\11
   System.out.println(b); \\21

2. int a=10;
   int b=++a + (a);
   System.out.println(a); \\11
   System.out.println(b); \\21

3. int a=10;
   int b=20;
   int c=a++ + b + ++b + a
   =10+20+21+11

   System.out.println(a); \\11
   System.out.println(b);\\21
   System.out.println(c); \\62

4. int a=10;
   int b=20;
   int c=a++ + a-- + b-- +b
   =10+11+20+19

   System.out.println(a); \\10
   System.out.println(b);\\19
   System.out.println(c); \\60

5. int a=10;
   int b=20;
   int c=a++ + ++a +b-- + --b
   =10+12+20+18

   System.out.println(a); \\18
   System.out.println(b);\\12
   System.out.println(c); \\60

6. int a=10;
   int b=20;
   int c =++a + a++ + ++b + b++ + --a + a--
   =11+ 11+ 21+ 21 +11+ 11

   System.out.println(a); \\10
   System.out.println(b);\\22
   System.out.println(c); \\86

7. int a=10;
   int b=20;
   int c=a-- + --a + a++ + --b + b-- + b++ + --b + a++
   =10 + 8+8+19+19+18+18+9

   System.out.println(a); \\10
   System.out.println(b);\\18
   System.out.println(c); \\109