

# Operators In Java



# ARITHMETIC OPERATOR

Operator	Result
+	Addition
-	Subtraction (or unary) operator
*	Multiplication
/	Division
%	Modulus
++	Increment
+=	Addition assignment
-=	Subtraction assignment
*=	Multiplication assignment
/=	Division assignment
%=	Modulus assignment
--	Decrement

# OPERATOR - UNARY

```
class PreAndPostIncrement
{
    public static void main(String arg[])
    {
        int a = 5;
        int b = 2;
        int c;
        int d;
        c = ++b; // LINE A
        d = a++; // LINE B
        c++; // LINE C
        System.out.println("a = " + a + " b = " + b + " c = " + c + " d = " + d);
    }
}
```

OUTPUT

a = 6 b = 3 c = 4 d = 5

# BITWISE OPERATOR

&	Bitwise AND
	Bitwise OR
^	Bitwise exclusive OR

# RELATIONAL OPERATOR

Operator	Result
==	Equal to
!=	Not equal to
>	Greater than
<	Less than
>=	Greater than or equal to
<=	Less than or equal to

# CONDITIONAL OPERATOR

Expression1 ? Expression 2 : expression 3 ;

Example :

```
int a=10;
```

```
int b= 20;
```

```
int value1 = (a<b) ? a : b;
```

```
int value2 = (a>b) ? a : b;
```

# LOGICAL OPERATOR

Operator	Result
&&	Logical AND
	Logical OR

## COMPARISON OF && and & OPERATOR

### Example

```
public static void main(String args[]){  
    int a=10;  
    int b=5;  
    int c=20;  
    System.out.println(a<b && a<c);  
    System.out.println(a<b & a<c);  
    System.out.println(a<b&&a++<c);  
    System.out.println(a);  
    System.out.println(a<b&a++<c);  
    System.out.println(a);  
}
```



## COMPARISON OF || and | OPERATOR

### Example

```
public static void main(String args[]){  
    int a=10;  
    int b=5;  
    int c=20;  
    System.out.println(a>b||a<c);  
    System.out.println(a>b|a<c);  
    System.out.println(a>b||a++<c);  
    System.out.println(a);  
    System.out.println(a>b|a++<c);  
    System.out.println(a);  
}}
```

# PREDICT THE OUTPUT

## Example

```
public static void main(String args[]){  
    int a=2;  
    int b=5;  
    int min=(a<b)?a:b;  
    System.out.println(min);  
}
```

# PREDICT THE OUTPUT

**Find the output of below**

```
int a=5,b=18;  
if((a=3)==b)  
{ System.out.println(++a);}  
else  
{ System.out.println(++b); }
```

**OPTIONS:**

- A. 3
- B. 18
- C. 19
- D. 6

**OUTPUT: C**

# PREDICT THE OUTPUT

Predict the output?

```
class Main {  
    public static void main(String args[]) {  
        int var1 = 5;  
        int var2 = 6;  
        if ((var2 = 1) == var1)  
            System.out.print(var2);  
        else  
            System.out.print(++var2);  
    }  
}
```

A. 1

B. 2

C. 7

D. 4

**Answer: B**

# PREDICT THE OUTPUT

What is the output of below expression.

$6-2+10\%4+7$

a.10

b.12

c.13

d.14