

*****/

```
public class Main
```

```
{
```

```
    public static void main(String[] args) {
```

```
        int a = 10;
```

```
        int b = 5;
```

```
        // Arithmetic Operators
```

```
        int sum = a + b;
```

```
        int difference = a - b;
```

```
        int product = a * b;
```

```
        int quotient = a / b;
```

```
        int modulus = a % b;
```

```
        System.out.println("Arithmetic Operators:");
```

```
        System.out.println("Sum: " + sum);
```

```
        System.out.println("Difference: " + difference);
```

```
        System.out.println("Product: " + product);
```

```
        System.out.println("Quotient: " + quotient);
```

```
        System.out.println("Modulus: " + modulus);
```

```
        // Relational Operators
```

```
        boolean equal = a == b;
```

```
        boolean notEqual = a != b;
```

```
        boolean greater = a > b;
```

```
        boolean less = a < b;
```

```
        boolean greaterOrEqual = a >= b;
```

```
        boolean lessOrEqual = a <= b;
```

```
        System.out.println("*****Relational Operators.*****");
```

```
        System.out.println("Equal: " + equal);
```

```
System.out.println("Not Equal: " + notequal);
System.out.println("Greater Than: " + grater);
System.out.println("Less Than: " + less);
System.out.println("Greater Than or Equal: " + graterOrEqual);
System.out.println("Less Than or Equal: " + lessOrEqual);
```

```
// Logical Operators
```

```
boolean and = (a > 0) && (b > 0);
boolean or = (a > 0) || (b > 0);
boolean not = !(a > 0);

System.out.println("*****Logical Operators:*****");
System.out.println("Logical AND: " + and);
System.out.println("Logical OR: " + or);
System.out.println("Logical NOT: " + not);
```

```
// Bitwise Operators
```

```
int bitwiseAnd = a & b;
int bitwiseOr = a | b;

System.out.println("*****bitwise Operators:*****");
System.out.println("bitwise and: " + bitwiseAnd);
System.out.println("bitwise or: " + bitwiseOr);
```

```
// bit wise compliment
```

```
int bitwiseComplement = ~a;

System.out.println("*****bit wise compliment Operators:*****");
System.out.println("bitwise compliment: " + bitwiseComplement);
```

```
// shift operators
```

```
int leftShift = a << 1;
int rightShift = a >> 1;
```

```

System.out.println("*****shift Operators:*****");

System.out.println("left shift: " + leftShift);

System.out.println("right shift: " + rightShift);


System.out.println("*****assignment operators***** ");
//*****assignment operators
// += operator
a += b;
System.out.println("a = " + a);
// -= operator
a -= b;
System.out.println("a = " + a);
// *= operator
a *= b;
System.out.println("a = " + a);
// /= operator
a /= b;
System.out.println("a = " + a);
// %= operator
a %= b;
System.out.println("a = " + a);
    }

}

//*****Output*****

```

```
Arithmetic Operators:
Sum: 15
Difference: 5
Product: 50
Quotient: 2
Modulus: 0
*****Relational Operators:*****
Equal: false
Not Equal: true
Greater Than: true
Less Than: false
Greater Than or Equal: true
Less Than or Equal: false
*****Logical Operators:*****
Logical AND: true
Logical OR: true
Logical NOT: false
*****bitwise Operators:*****
bitwise and: 0
bitwise or: 15
*****bit wise compliment Operators:*****
bitwise compliment: -11
*****shift Operators:*****
left shift: 20
right shift: 5
*****assignment operators*****
a = 15
a = 10
a = 50
a = 10
a = 0

...Program finished with exit code 0
Press ENTER to exit console.
```

Online Java Compiler - online editor

Main.java

```
1- /******
2-
3-           Online Java Compiler.
4-           Code, Compile, Run and Debug java program online.
5-           Write your code in this editor and press "Run" button to execute it.
6-
7-           *****/
8-
9- public class Main
10- {
11-     public static void main(String[] args) {
12-         int a=10;
13-         int b=5;
14-         int max=(a>b)?a:b;
15-         System.out.println("*****ternary operator*****");
16-         System.out.println(max);
17-     }
18- }
19-
```

Input

```
*****ternary operator*****
10

...Program finished with exit code 0
Press ENTER to exit console.
```

Online Java Compiler - online editor

Main.java

```
10- {
11-     public static void main(String[] args) {
12-         int num = 10;
13-         int result1 = +num; // Unary plus operator
14-         int result2 = -num; // Unary minus operator
15-         int result3 = ++num; // Pre-increment operator
16-         int result4 = --num; // Pre-decrement operator
17-         int result5 = num++; // Post-increment operator
18-         int result6 = num--; // Post-decrement operator
19-
20-         System.out.println("Unary plus: " + result1);
21-         System.out.println("Unary minus: " + result2);
22-         System.out.println("Pre-increment: " + result3);
23-         System.out.println("Pre-decrement: " + result4);
24-         System.out.println("Post-decrement: " + result5);
25-         System.out.println("Post-decrement: " + result6);
26-     }
27- }
28- }
29-
```

Input

```
Unary plus: 10
Unary minus: -10
Pre-increment: 11
Pre-decrement: 10
Post-decrement: 10
Post-decrement: 11

...Program finished with exit code 0
Press ENTER to exit console.
```