practice

T && T

boolean ans = (3 > 2) && (4 > 3); // true

boolean ans = (40 > 3) && (40 < 5); // false

boolean ans = (40 >= 40) || (50 >= (2 * 3)); // true

boolean ans = ((2 * 3 == 4) && (6 * 4 == 24)) || (4 > 2); // true

boolean ans = !(2 * 5 != 10)

⇒ !(10 != 10)

⇒ !(false) = True

⇒ Unary Operator

```
int a = 5;
```

a++	:-	post inc.	:- will increment value later
++a	:-	pre inc.	:- will increment value first

Note:-

a = 5

```
print (a++);  <=>  print(a);
                   a++;  // 6
```

→ 5

a = 5

```
print (++a);  <=>  a++;
                   print(a);
```

→ 6

Ques Print value of a, b, c

	int a = 5	a = 5	b	c
1)	b = a++;	6	5	–
2)	c = b++;	6	6	5
3)	a = ++b;	7	7	5
4)	b = ++c;	7	6	6
5)	c = ++a;	8	6	8
6)	a = b++;	6	7	8
7)	b = ++c;	6	9	9
8)	c = a++;	7	9	6

a = 7, b = 9, c = 6

Note:- $a = 5, \; b = 6$

$a = a + b \; ;$ // 11

$a += b$ // 11

Quel Print a, b, c

	a = 5	a = 5	b	c
1)	b = ++a	6	6	-
2)	c = ++b	6	7	7
3)	a = b++	7	8	7
4)	b = c++	7	7	8
5)	c = ++a	8	7	8
6)	a += b	15	7	8
7)	b -= c	15	-1	8
8)	c += b	15	-1	7
9)	b--	15	-1	7
10)	a++	15	-2	7
11)	c--	16	-2	7

b = -2

a = 16

c = 6

a = 16 , b = -2 , c = 6

⇒ Conditions

1) if condition

Syntex

```
if (conditions) {
    // statement
}
```

ex:-

```
if ( 5 > 3 ) {
    System.out.print("Hi");
}
```

Ques print the given no. if it is greater than 10

n = 9
n = 15

code

```
int n = scn.nextInt();
if ( n > 10 ) {
    print (n);
}
```

2)
```
if ( condition ) {
    // statement 1
} else {
    // statement 2
}
```

(both can never execute)

Ex:-

```
if ( 5 > 7 ) {
    print ("Hi");
} else {
    print ("Hello");
}
```

Ques Print a given no. if it is +ve, otherwise print double of its value.

n = 7 ⇒ 7

n = -4 ⇒ -8

n = 0 ⇒ 0

```
int n = scn.nextInt();
if ( n > 0 ) {
    print (n);
} else {
    print (2 * n);
}
```

Adult or not 1

```
public static void main(String[] args) {
    Scanner scn = new Scanner(System.in);
    int age = scn.nextInt();

    if ( age >= 18 ) {
        System.out.println("Adult");
    } else {
        System.out.println("Below age");
    }
}
```

Shop Discount

int units = 15 ;

totalCost = 15 * 100 = 1500

discount = $1500 * \frac{10}{100} = 150$

finalCost = 1500 − 150

= 1350

Code

```
public static void main(String[] args) {
    Scanner scn = new Scanner(System.in);
    int units = scn.nextInt();

    int totalCost = units * 100;
    if ( totalCost > 1000 ) {
        int discount = (totalCost * 10) / 100;
        totalCost = totalCost - discount;
        // totalCost -= discount;
    }

    System.out.println(totalCost);
}
```

High Sum or Low Sum

```
public static void main(String[] args) {
    Scanner scn = new Scanner(System.in);
    int x = scn.nextInt();
    int y = scn.nextInt();

    int sum = x + y;
    if ( sum >= 100  ) {
        System.out.println("High Sum");
    } else {
        System.out.println("Low Sum");
    }
}
```