Last digit

% 10

41 → 1

10 | 41 | 4
40
1 ← R

When we do % 10 of any no., we will get last digit.

Add Last Digits

```
Scanner s = new Scanner(System.in);
int first = s.nextInt();
int second = s.nextInt();

int x = first % 10;
int y = second % 10;

int sum = x + y;
System.out.println(sum);
```

first → 413
second → 324

x = 413 % 10 → 3
y = 324 % 10 → 4
Sum = 3 + 4 = 7

Comparison or Relational operators

b1 b2

> → greater than

b1 > b2

b1

< → less than

b2

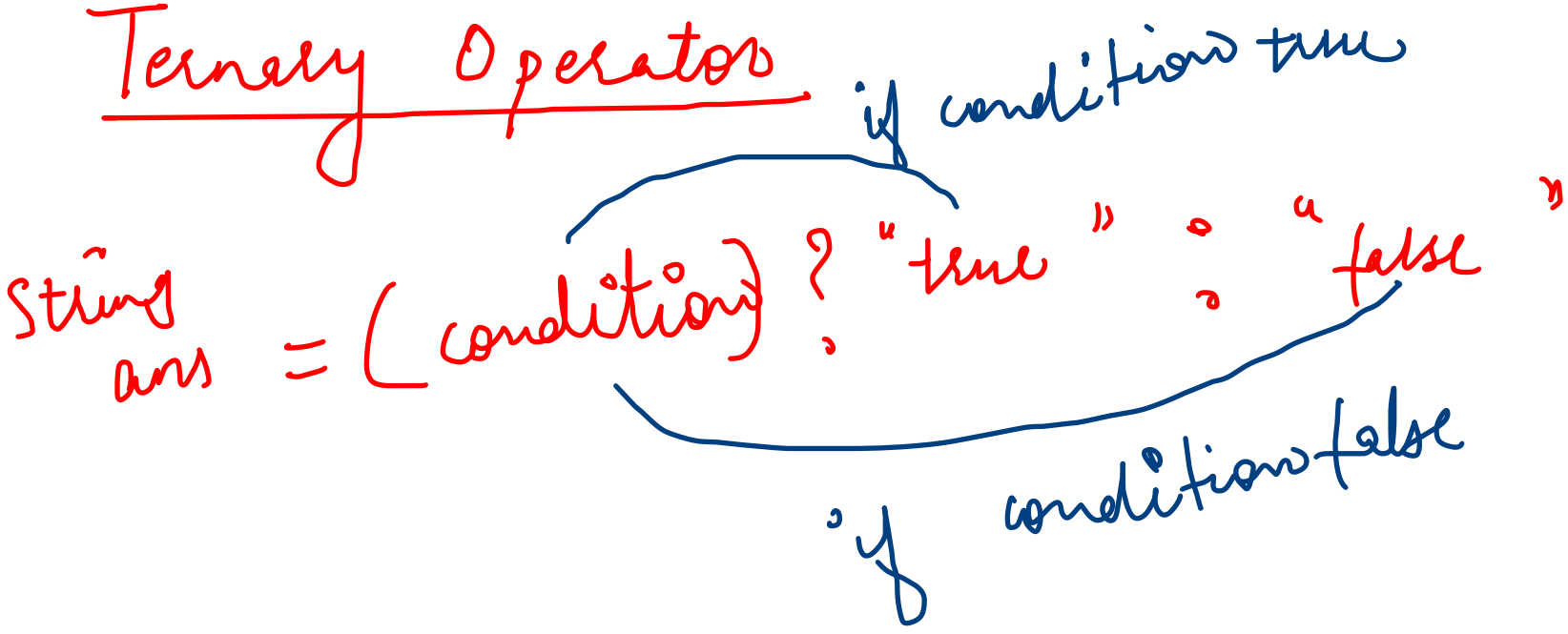
>= → greater than equal to

<= → less than equal to

== → equals to

!= → not equals to

Ternary Operator



x = 70

x = 150

String ans = (x > 100) ? "Yes" : "No";

No 70 > 100.

Yes - 150 > 100

greater than 100 or not.

char = true ✗

char → 'T', 'F'

```
Scanner s = new Scanner(System.in);
int x = s.nextInt();

String ans = (x > 100) ? "True" : "False";
System.out.println(ans);
```

xyzw

```
Scanner s =
int x;
int y;
int z;
int w;

int m1 = x*y;
int m2 = z*w;

String ans = (m1 == m2)? "true" : "False";
Syso(ans);
```

Even or not

```
Scanner s =
    int x;

String ans = (x % 2 == 0) ? "True" : "False";
Syso(ans);
```

Sum is less than 150 or not.

```
Scanner s =
    int x, y z;
int sum = x+y+z;
String ans = (sum < 150)? "true" : "False";
Syso(ans);
```

Adult or not 1

```
Scanner s = new Scanner(System.in);
int age = s.nextInt();

String ans = (age >=18)? "Adult" : "Below age";
System.out.println(ans);
```

if-else

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

→ never write condition in else

⇒ else is optional, we can skip

Eg.
```
if (marks > 33)
    pass
else
    fail
```

Shop Discount

```
Scanner s = new Scanner(System.in);
int units = s.nextInt();

int totalCost = units * 100;

if(totalCost > 1000){
    int discount = totalCost / 10;
    int finalCost = totalCost - discount;
    System.out.println(finalCost);
}
else{
    System.out.println(totalCost);
}
```

units ≥ 10

TC ≥ 10 * 100 = 1000

if [1000 > 1000) No

1000 o/p

if - else ladder

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

if (>90)
A

>80
B

>60
C

D

if (
—
—
—
—
—
—
—

Grade the student 1

```java
Scanner s = new Scanner(System.in);
int marks = s.nextInt();

if(marks > 90){
    System.out.println("excellent");
}
else if(marks > 80){
     System.out.println("good");
}
else if(marks > 70){
     System.out.println("fair");
}
else if(marks > 60){
     System.out.println("meets expectations");
}
else if(marks > 40){
    System.out.println("below par");
}
else{
      System.out.println("failed");
}
```

m = 93

m = 45

m = 81

m = 60

m = 20

Print Bonus

```
Scanner s =
int salary;
int years;

int bonus = 0;
if(years > 5){
    bonus = (salary*5) / 100;
    Syso(bonus);
}
else{
    Syso(bonus);
}
```

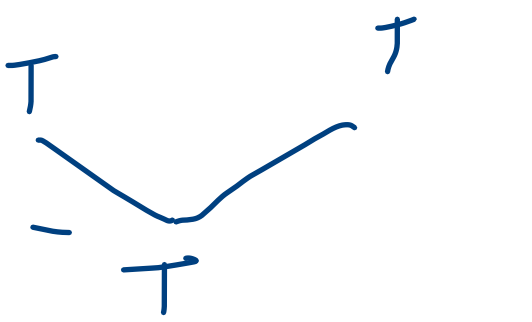
Logical Operators -

AND (&&)

X	Y	o/p
T	T	T
T	F	F
F	T	F
F	F	F

S1 S2 S3

S1 > S2 && S1 > S3



OR (||)

X	Y	o/p
T	T	T
T	F	T
F	T	T
F	F	F

S1 S2 S3

S1 > S2 || S1 > S3

T F

NOT (!)

X	o/p
T	F
F	T

even

n % 2 == 0

n % 2 != 0

↳ odd.