

# Increment / Decrement

++, --

SOOT(2++); X

→ There needs to be a variable

Variable ⇒ Declaration, Initialization & Definition

int temp = 2; ✓

SOOT(temp++);

→ Post Increment

SOOT(temp++);

op: 2  
3

SOOT(++temp);

→ Pre Increment

SOOT(++temp);

SOOT(temp++);

op: 3  
4  
4

# How to take input in Java

What's IP?

Why IP?

How IP?

Int  
String

```
Scanner sc = new Scanner(System.in);
```

```
int xyz = sc.nextInt();
```

```
Boolean abc = sc.nextBoolean();
```

```
Long var = sc.nextLong();
```

```
char ch = sc.next().charAt(0)
```

String :-

collection of characters

character :- single letter, (a-z, A-Z)

special character

abc\*?!Ab

(" , . ? ! \* \_ -)

```
String abc = "abc*?!NishantHello";
```

```
char xyz = 'c';
```

```
int xyz = 4;
```

```
String myString = "aaaaa"  
                "bbbb"  
                "abcd"
```

```
Scanner sc = new Scanner(System.in);  
int myVar = sc.nextInt();
```

```
int myVar = 4;  
myVar = 6;  
= 7
```

Afel  
Ansh  
Raj

## Comparison & Logical operators

- |   |    |              |
|---|----|--------------|
| ① | =  | Assignment   |
| ① | == | comparison   |
| ② | != |              |
| ③ | >  | Greater than |
| ④ | <  | less than    |
| ⑤ | >= |              |

⑥ &lt;

⑦ &lt;=

⑧ && → c1 && c2 → right operand  
 ↓  
 left operand      operator

⑨ ||  
 → If both conditions are true then only whole condition is true

↓  
 If any of the condition is true the whole condition is true

```
Scanner sc = new Scanner(System.in);
```

```
int var1 = sc.nextInt();
```

```
int var2 = sc.nextInt();
```

```
int var3 = sc.nextInt();
```

```
Boolean var4 = sc.nextBoolean();
```

```
System.out.println(var1 + var2);
```

```
SOOT (var1 + var2 * var3);
```

~~String~~ string str = "Hello";

cout (str) : op  $\Rightarrow$  Hello

cout (str + "world");  $\rightarrow$

op:

Hello  
world

cout ("Hello" + "world");

HelloWorld  
 $\downarrow$

cout ("Hello" + " \_ world")

cout ("Hello" + " " + "world")

```
import java.util.*;
// "static void main" must be defined in a public class.
public class Main {
    public static void main(String[] args) {
        // int myVar1 = 3;
        // System.out.println(myVar1);

        // Scanner sc = new Scanner(System.in);
        // int myVar2 = sc.nextInt();
        // System.out.println(myVar2);

        // Boolean myVar3 = sc.nextBoolean();
        // System.out.println(myVar3);

        Scanner sc = new Scanner(System.in);
        int a = sc.nextInt();
        int b = sc.nextInt();
        int c = sc.nextInt();

        Boolean abc = a>b && c>b;

        // Boolean x = sc.nextBoolean();
        // Boolean y = sc.nextBoolean();

        //a = c; //Assignment operator : Assigns the value of right operand
        //to left operand

        System.out.println(abc); // Comparison operator : compares the
        //values on left and right of the operator

    }
}
```

Truth table for AND and OR operator

```
// # c1 || c2

// c1 c2. Complete
// true. true. true
// true. false. true
// false true. true
// false false. false

// #. c1 && c2

// c1 c2. Complete
// true. true. true
// true. false. false
// false true. false
// false false. false

// int var = 4;
```

## HW

```
// Play around with code
// take two boolean numbers in the input and print a&&b, a||b
```