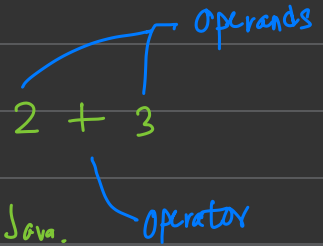


# ③ Ternary operator:

- 3 operands are reqd
- there is only one ternary operator in Java.



Syntax: `int x, y;`

`x = 100;`

`y = 20;`

`int z;`

`z = (x > y) ? x : y;`

`Sopln(z); // 100`

(condition) ? value if condn is True : value if condition is False

The screenshot shows a Newton School online session. The main window displays handwritten notes on the ternary operator. The notes include the syntax `z = (condn) ? True : False;` and a code example `(a > b) ? ((a > c) ? a : c) : ((b > c) ? b : c)`. The code is annotated with values: `2 > 5` is false, `2 > 3` is true, and `5 > 3` is true. The result of the expression is shown as 3. The notes also include a table of operators and a list of examples: `a & b → b is Greater`, `2 & 5 → 5`, `b & c → b is Greater`, and `5 & 3 → 5`. The chat window on the right shows a conversation with Arunangshu Mullick, Lohitkash, and Yogesh G. Rajpayle. The bottom of the screen shows the Newton School interface with buttons for 'Stop Sharing', 'Video Off', 'Mic On', 'More', 'Leave', 'Chat', 'Today's Agenda', 'Participants', and 'Polls'.

## ① Assignment Operator: $=$ $+=$ $-=$ $*=$ $/=$ $\%=$

$a=10;$  //  $a=10$

a				
10	11	12	24	
			48	

$a=a+1;$  //  $a=10+1;$

$a+=1;$  //  $+=$  Compound Assignment Operator

It means  $a=a+1;$   
 $a=10+1;$

$a=a*2;$  //  $a=12*2$

$a*=2;$  //  $a=a*2;$

$a=24*2;$

eg:  $x*=2$  means  $x=x*2$

$y/=3$  means  $y=y/3$

$z\%=7$  means  $z=z\%7$

$m+=9$  means  $m=m+9$

# Control Stmts:

Conditional Stmts: if , if - else, if - else - if - else

if stmt: Syntax: if (condition)  
{  
do this;  
do this;  
}

```
52  
53 public class Main  
54 {  
55     Run | Debug  
56     public static void main(String[] args) {  
57         int x=10;  
58         if (x>0) if (10>0) ✓  
59         {  
60             System.out.println(x+" is a Positive Number.");  
61         }  
62         System.out.println(x+" This is not a part of if statement ");  
63     }  
64  
65  
66  
67  
68  
69  
70
```

Terminal Output:

```
10 is a Positive Number.  
This is not a part of if statement  
(base) ingledarshan@192 NS 19 Feb 2023 %
```

The screenshot shows an IDE with a Java file named Main.java. The code defines a public class Main with a main method. Inside the main method, an integer x is initialized to 10. An if statement checks if x is greater than 0. Handwritten annotations include a checkmark next to the condition (10 > 0), a box around the value 10, and a bracket indicating the scope of the if block. The output of the program is shown in the terminal, displaying "10 is a Positive Number." and "This is not a part of if statement".

```
64
65 public class Main
66 {
    Run | Debug
67     public static void main(String[] args) {
68         ① int x = -10;
69         ② if (x > 0) { if (-10 > 0) No
70             {
71                 System.out.println(x + " is a Positive Number.");
72             }
73         ③ System.out.println(x + "This is not a part of if statement");
74     }
75 }
76
77
```

PROBLEMS 1 OUTPUT DEBUG CONSOLE TERMINAL

This is not a part of if statement.  
o (base) ingledarshang192 NS 19 Feb 2023 %

if-else stmt:

Syntax:

if (condn 1 is True)

{ do this;

do this;

}

else if (condn 2 is True)

{

do this;

do this;

}

else

{

do this;

do this;

}

EXPLORER

NS 19 FEB 2023

- Main.class
- Main.java
- tempCodeRunn... 1

Main.javaMainmain(String[])

```
77 public class Main
78 {
79     Run | Debug
80     public static void main(String[] args) {
81         ① int x=10;
82         ② if (x>0) ✓
83         {
84             System.out.println(x+" is a Positive Number.");
85         }
86         else if (x<0)
87         {
88             System.out.println(x+" is a Negative Number.");
89         }
90         else
91         {
92             System.out.println(x+" is neither Positive or Negative Number.");
93         }
94         ③ System.out.println(x; "This is not a part of if statement ");
95     }
96 }
```

PROBLEMS 1 OUTPUT DEBUG CONSOLE TERMINAL

10 is a Positive Number.  
This is not a part of if statement  
(base) ingledarshang192 NS 19 Feb 2023 %

OUTLINE  
TIMELINE  
JAVA PROJECTS

Ln 87, Col 60 Spaces: 4 UTF-8 LF {} Java

EXPLORER

NS 19 FEB 2023

- Main.class
- Main.java
- tempCodeRunn... 1

Main.javaMainmain(String[])

```
77 public class Main
78 {
79     Run | Debug
80     public static void main(String[] args) {
81         ① int x=-10;
82         ② if (x>0) ✗
83         {
84             System.out.println(x+" is a Positive Number.");
85         }
86         else if (x<0) ✓
87         {
88             System.out.println(x+" is a Negative Number.");
89         }
90         else
91         {
92             System.out.println(x+" is neither Positive or Negative Number.");
93         }
94         ③ System.out.println(x; "This is not a part of if statement ");
95     }
96 }
```

PROBLEMS 1 OUTPUT DEBUG CONSOLE TERMINAL

-10 is a Negative Number.  
This is not a part of if statement  
(base) ingledarshang192 NS 19 Feb 2023 %

OUTLINE  
TIMELINE  
JAVA PROJECTS

Ln 90, Col 10 Spaces: 4 UTF-8 LF {} Java

```
77 public class Main
78 {
79     public static void main(String[] args) {
80         ① int x=0;
81         ② if (x>0) ✗
82         {
83             System.out.println(x+" is a Positive Number.");
84         }
85         else if (x<0) ✗
86         {
87             System.out.println(x+" is a Negative Number.");
88         }
89         else
90         {
91             System.out.println(x+" is neither Positive or Negative Number.");
92         }
93         ③ System.out.println(x: "This is not a part of if statement ");
94     }
```

PROBLEMS 1 OUTPUT DEBUG CONSOLE TERMINAL

0 is neither Positive or Negative Number.  
This is not a part of if statement  
(base) ingledarshan@192 NS 19 Feb 2023 %

## Program:

month = 4; // April

month = 12 or 1 or 2 → Winter

month = 3 or 4 or 5 → Spring

month = 6 or 7 or 8 → Summer

month = 9 or 10 or 11 → Autumn

month = any other value → Bogus Month

Nested if:

Syntax:

```
if (condition1 is True)
```

```
{
```

```
    do this;
```

```
    if (condition2 is True)
```

```
    {
```

```
        do this
```

```
    }
```

```
    do this;
```

```
}
```

```
else
```

```
{
```

```
    do this;
```

```
    do this;
```

```
}
```

