

```
public class Test {  
    public static void main(String[] args) {  
        // TODO Auto-generated method stub  
        System.out.println("WelCome to Coding Blocks");  
        System.out.print("Hello");  
        System.out.print("Okay");  
        System.out.print("Bye");  
    }  
}
```

Welcome to coding blocks
Hellokey
Bye

Variant

Varia

□

$x = \text{Ram}$

Java divides the into the following groups:

- Arithmetic operators
- Assignment operators
- Comparison operators

Arithmetic Operators

Arithmetic operators are used to perform

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Operator	Name	Description	Example	Try it
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Operator	Description	Example
+	Addition	Adds together two values $x + y$
-	Subtraction	Subtracts one value from another $x - y$
*	Multiplication	Multiplies two values $x * y$
/	Division	Divides one value by another x / y
%	Modulus	Returns the division remainder $x \% y$
++	Increment	Increases the value of a variable by 1 $++x$
--	Decrement	Decreases the value of a variable by 1 $--x$

ADVERTISEMENT

Java Assignment Operators

Assignment operators are used to assign values to variables. In the example below, we use the **assignment** operator (=) to assign the value **10** to a variable called **x**:

17

Example

[Try it Yourself »](#)

The addition

Example

```
int x = 10; x += 5;
```

Operator	Example	Same As	Try it Yourself
=	x = 5	x = 5	try it
+=	x += 3	x = x + 3	try it
-=	x -= 3	x = x - 3	try it
*=	x *= 3	x = x * 3	try it
/=	x /= 3	x = x / 3	try it
%=	x %= 3	x = x % 3	try it
&=	x &= 3	x = x & 3	try it
=	x = 3	x = x 3	try it
>>=	x >>= 3	x = x >> 3	try it
<<=	x <<= 3	x = x << 3	try it

$x = x + 3$
 $x = x + 3$

Java Comparison Operators

Comparison operators are used to compare two values:

Operator	Name	Example	Try it
<code>==</code>	Equal to	<code>x == y</code>	Try it
<code>!=</code>	Not equal	<code>x != y</code>	Try it
<code>></code>	Greater than	<code>x > y</code>	Try it
<code><</code>	Less than	<code>x < y</code>	Try it
<code>>=</code>	Greater than or equal to	<code>x >= y</code>	Try it
<code><=</code>	Less than or equal to	<code>x <= y</code>	Try it

$x = 5$
 $x = 5 \Rightarrow$
 $x > y$
 $x < y$
 $x > z$
 $x < z$

Java Logical Operators

Operator	Notation	Description	Example	Result
AND	&	Logical AND	5 & 3	1
OR		Logical OR	5 3	7
XOR	^	Logical XOR	5 ^ 3	6
NOT	~	Logical NOT	~5	-6
Left Shift	<<	Left Shift	5 << 2	20
Right Shift	>>	Right Shift	5 >> 2	1

Operator	Name	Description	Example	Try it
&&	Logical and	Returns true if both statements are true	x < 5 && x < 10	Try it »
	Logical or	Returns true if one of the statements is true	x < 5 x < 4	Try it »
!	Logical not	Reverse the result, returns false if the result is true		

a b c

gg \Rightarrow logical

a	b	a & b
T	T	T
T	F	F
F	T	F
F	F	F

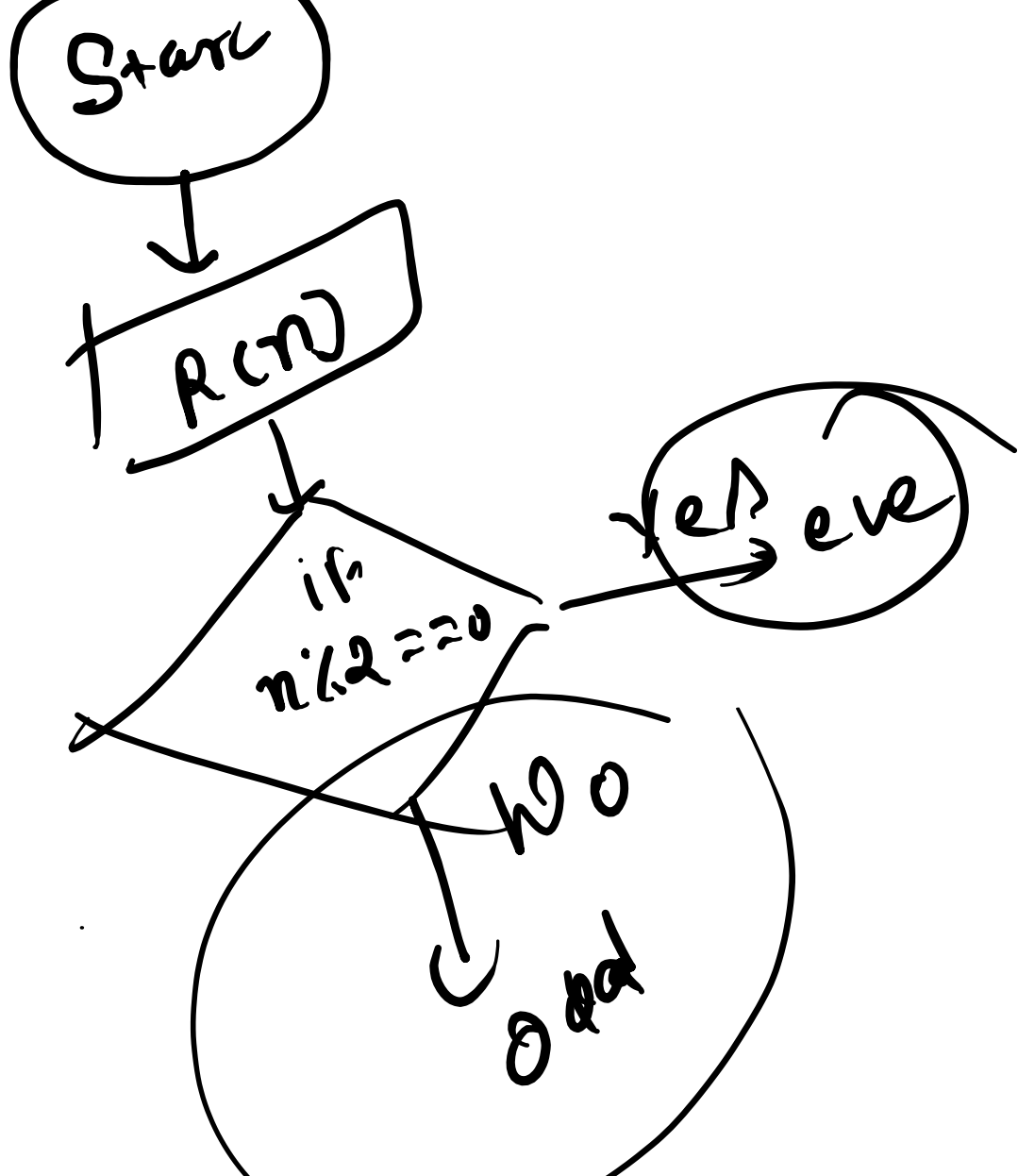
a	b	a b
T	T	T
T	F	T
F	T	T
F	F	F

$$1(1^+) = 0.6$$

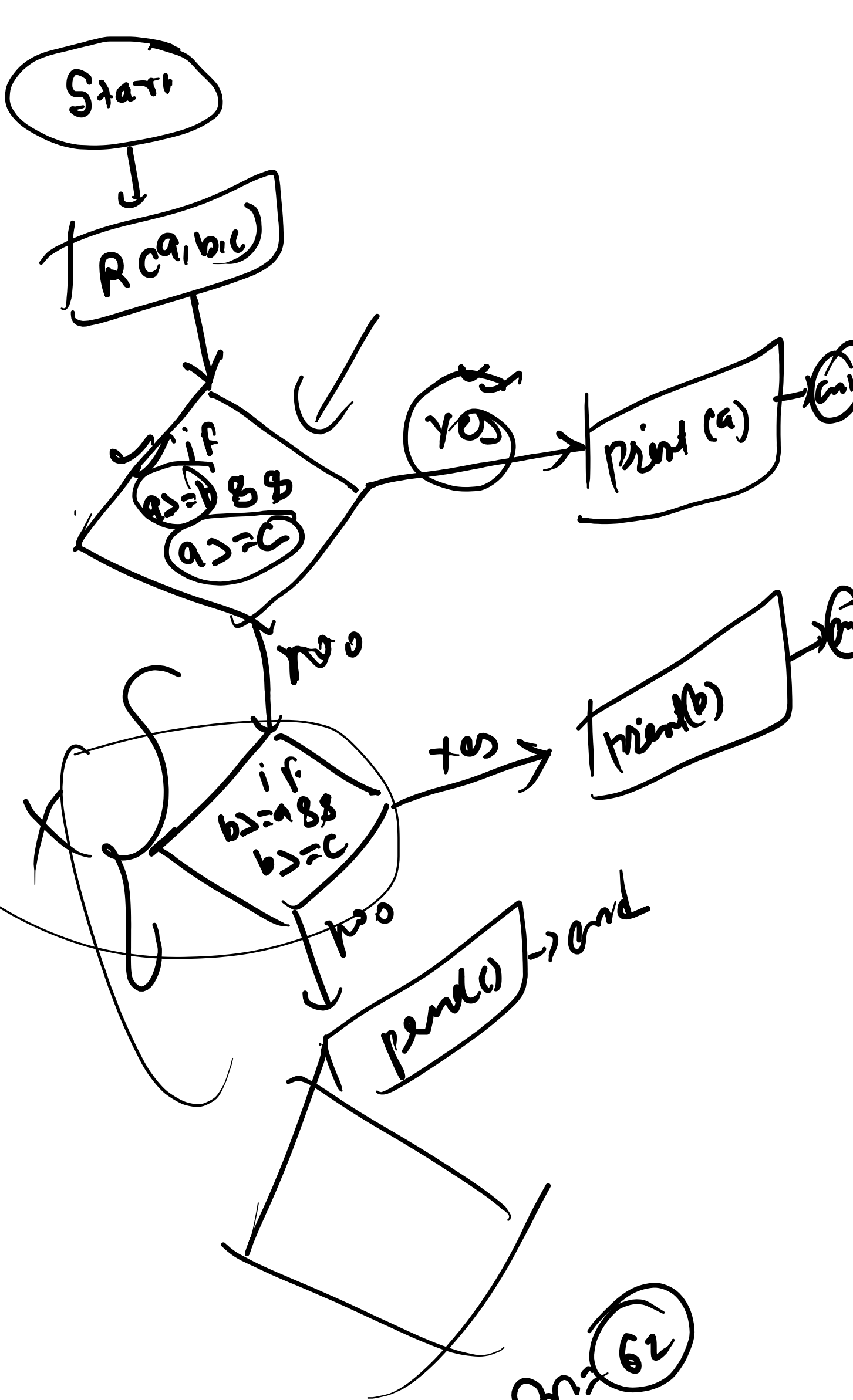
not

$\neg(T) = F$

$\neg(F) = T$



```
public static void main(String[] args) {  
    // TODO Auto-generated method stub  
    int a = 19;  
    int b = 12;  
    int c = 14;  
    if (a > b && a >= c) {  
        System.out.println(a);  
    }  
    else if (b >= a && b >= c) {  
        System.out.println(b);  
    }  
    else {  
        System.out.println(c);  
    }  
}
```


$$m \cdot 81^2 =$$

$m \rightarrow \left\{ \begin{array}{l} m > 75 \text{ A} \checkmark \\ m > 65 \text{ and } m < 75 \text{ B} \checkmark \\ m = 55 \text{ and } m < 65 \text{ C} \checkmark \\ m > 45 \text{ and } m < 55 \text{ Pass} \checkmark \\ m < 45 \text{ Fail} \end{array} \right\}$

$m < 45$ Fail
 $m = 5$ 38 40 20
 $m = 10$ 15 16 17 18 19 20
 $m = 15$ 15 20 20 Bike
 $m = 20$ 50 80 Cycle
 $m = 25$ 100 200 Car
 $m = 30$ 250 500 Mac
 $m = 35$ 500 1000 Kwikwik
 $m = 40$ 1000 2000 Mac
 $m = 45$ 2000 4000 Kwikwik

18-25 cycle
50-80 cycle
100-200 car
250-300 mac
1200 to 1400 kuy kure

15-20 Bike
 15-18 Hero Bike
 19-20 KTM
 50-70 → automatic cycle
 71-80 manual cycle
 100-181 THNE
 182-200 car
 201-250 mac
 251-300 Happy birthday
 301-350

```
public static void main(String[] args) {
    // TODO Auto-generated method stub
    int x = 9;

    x++; // x = x + 1; // post Increment
    x--; // x = x - 1; // post Decrement
    ++x; // x = x + 1; // pre Increment
    --x; // x = x - 1; // pre Decrement
    System.out.println(++x);
    System.out.println(x);
}
```

$x++ \rightarrow 9$

int c = x++ + 7 + (++x) + --x + x--;

$x = 9$
~~10~~ 4
~~10~~ 9

$$x = 9 \times 10^4$$

int c = $\underbrace{++x}_{9} + \underbrace{++x}_{11} - \underbrace{x}_{10} + \underbrace{--x}_{9} + \underbrace{x}_{9} - \underbrace{++x}_{11} //$