Lec-1

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Java divides the into the following groups:

- Arithmetic
- Assignment operators
- Comparison operators
- Logical operators
- Bitwise operators

Arithmetic Operators

Arithmetic operators are used to perform common mathematical operations.

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

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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**:

Example

```
intx =10;
```

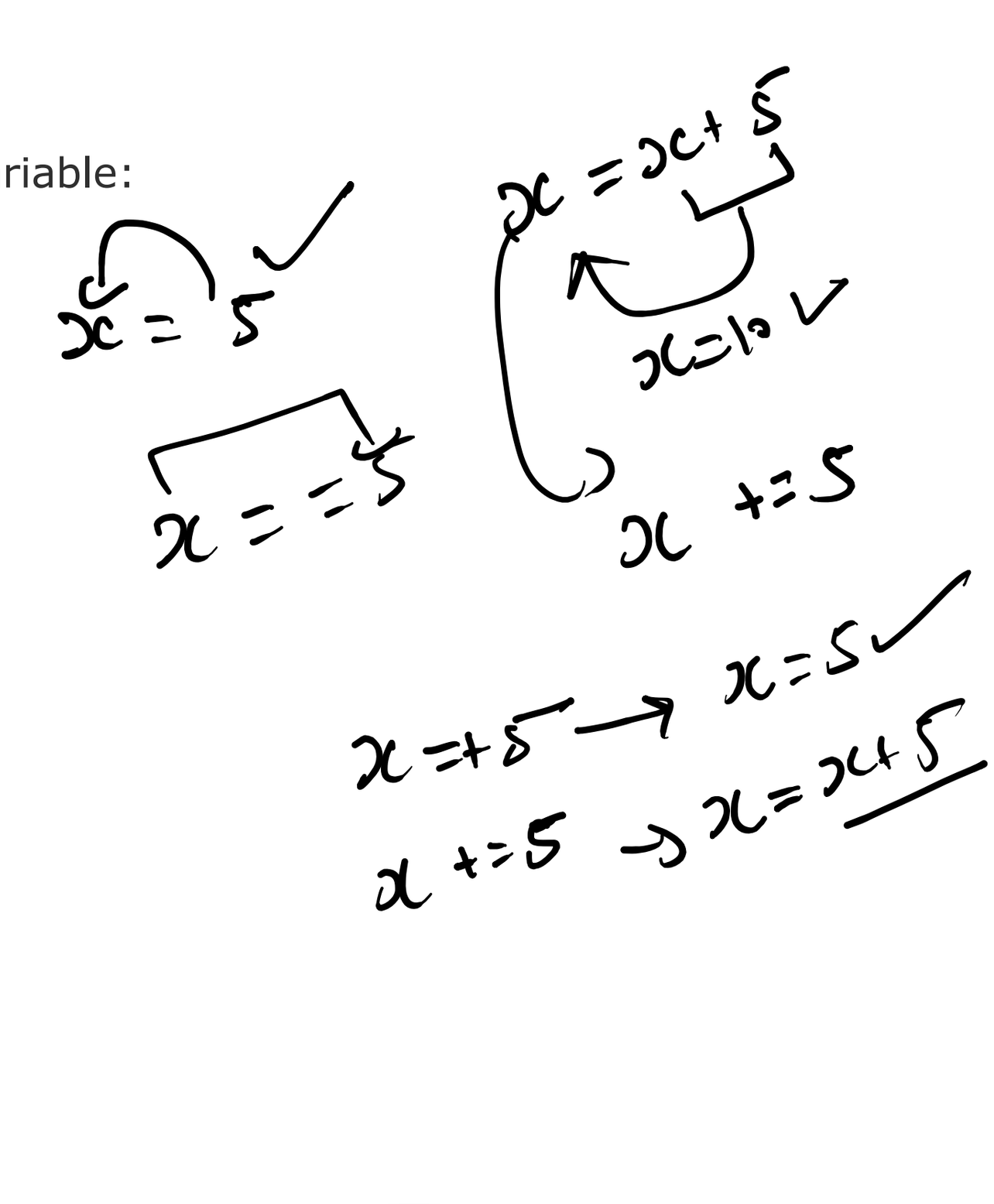
Try it Yourself »

The **addition assignment** operator (+=) adds a value to a variable:

Example

```
intx =10;x +=5;
```

Try it Yourself »



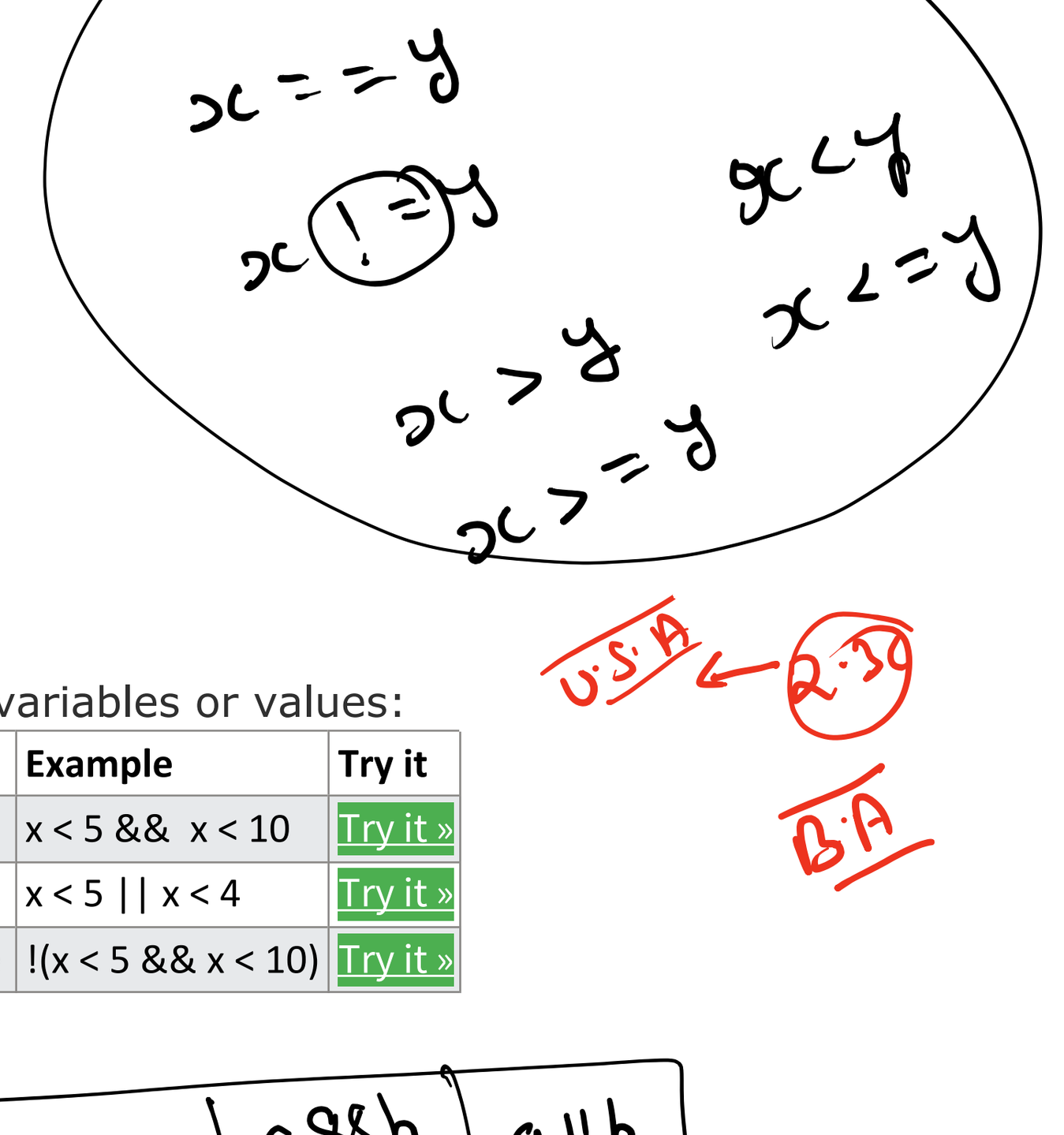
A list of all assignment operators:

Operator	Example	Same As	Try it
=	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 <<= 3	x = x << 3	Try it »

Java Comparison Operators

Comparison operators are used to compare two values:

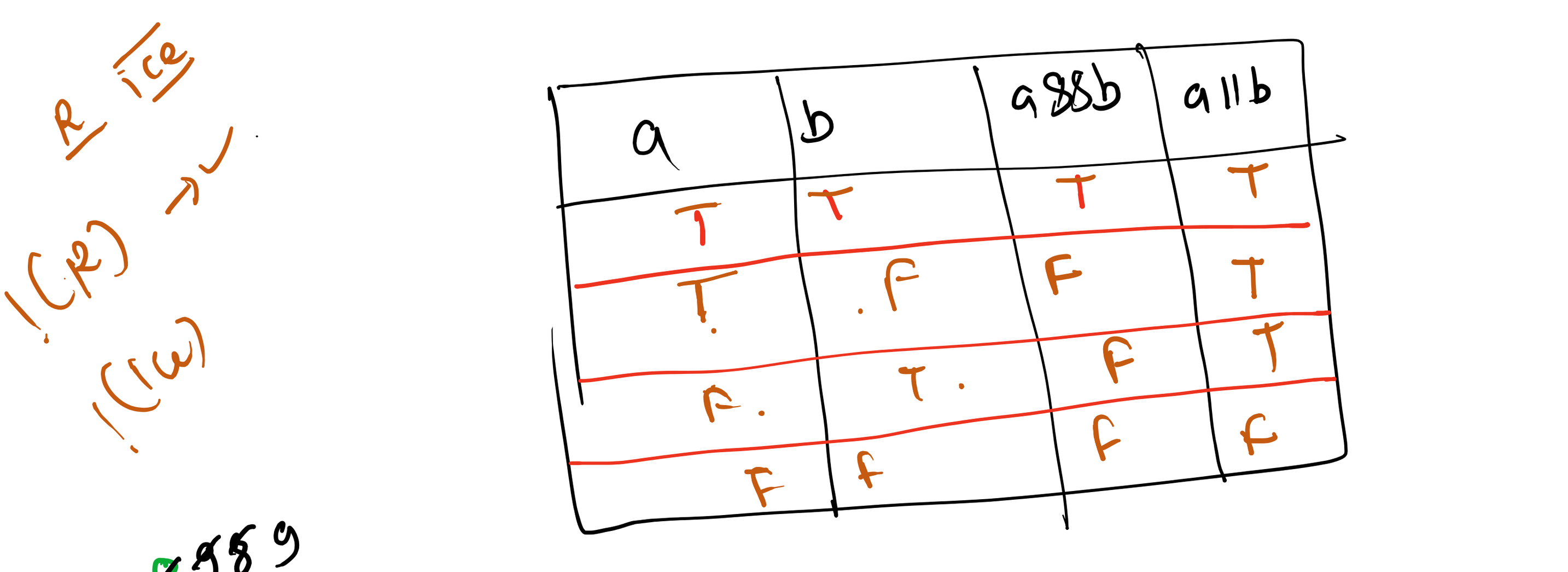
Operator	Name	Example	Try it
==	Equal to	x == y	Try it »
!=	Not equal	x != y	Try it »
>	Greater than	x > y	Try it »
<	Less than	x < y	Try it »
>=	Greater than or equal to	x >= y	Try it »
<=	Less than or equal to	x <= y	Try it »



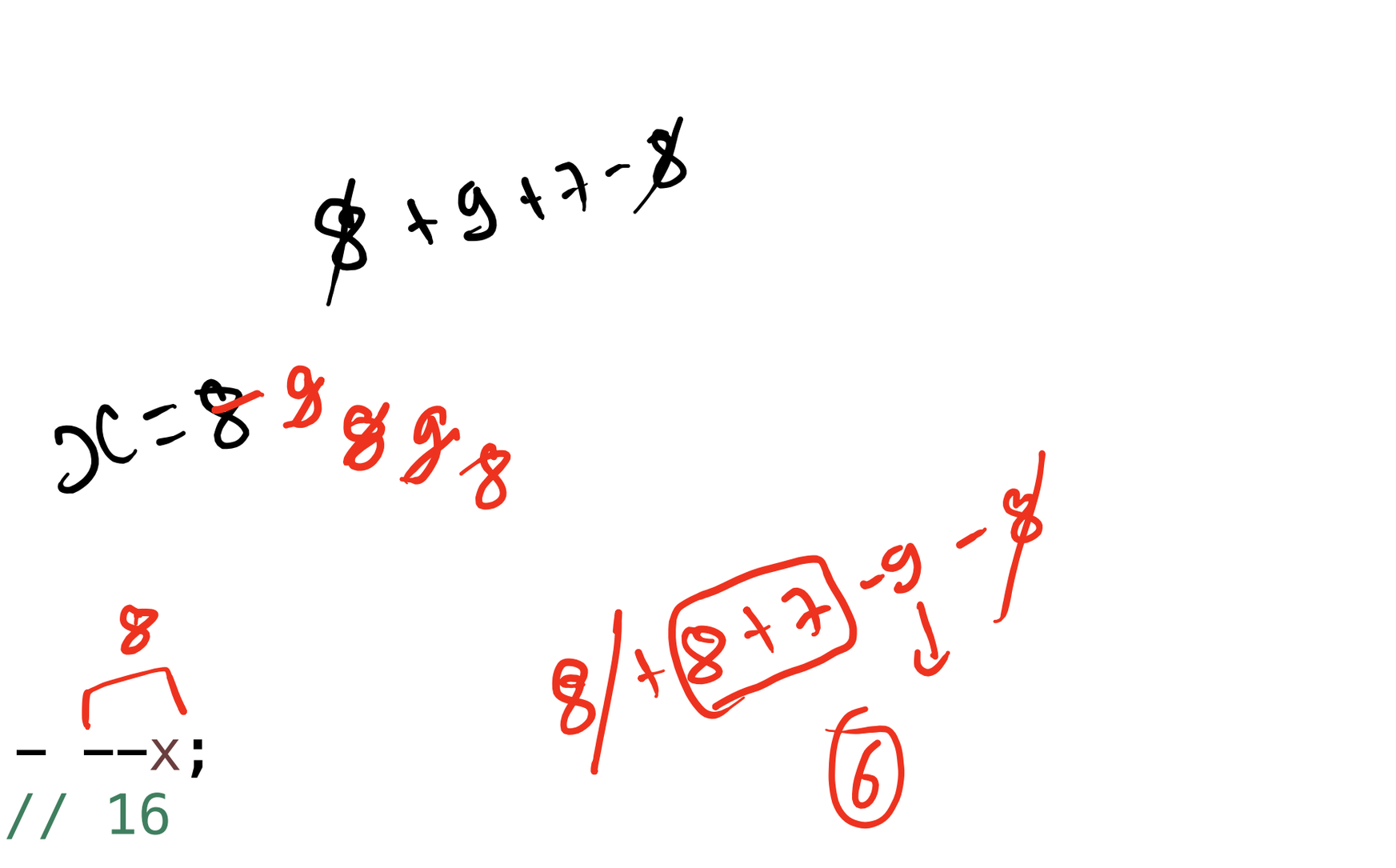
Java Logical Operators

Logical operators are used to determine the logic between variables or values:

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	!(x < 5 && x < 10)	Try it »



```
int a = x++ + x-- + 7 - x++;
        System.out.println(a);
```



```
int a = x++ + --x + 7 - ++x - --x;
        System.out.println(a);// 16
```