Object-Oriented Programming Fundamentals

Java operator precedence from highest to lowest

```
+ - ++ -- ! (unary operators)
* / %
+ - (binary +, - operators)
< > <= >=
== !=
&&
||
=
```

Distribution over relational operators

```
! (a >= b) \Leftrightarrow a < b
! (a > b) \Leftrightarrow a <= b
! (a <= b) \Leftrightarrow a > b
! (a < b) \Leftrightarrow a >= b
! (a == b) \Leftrightarrow a != b
! (a != b) \Leftrightarrow a == b
```

De Morgan's law

```
! ( a && b) \Leftrightarrow !a || !b
! (a || b) \Leftrightarrow !a && !b
```

Operator	Operand type	Result
&&	boolean	Boolean 'and' with short circuit evaluation
&	boolean	Boolean 'and' with complete evaluation
&	integer types	Bitwise 'and'
	boolean	Boolean 'or' with short circuit evaluation
	boolean	Boolean 'or' with complete evaluation
	integer types	Bitwise 'or'
۸	boolean	Boolean XOR
۸	Integer types	Bitwise XOR