# **Operators**

# (1) Arithmetic

:Used in mathematical expressions in the same way that they are used in algebra.

Operator	Result
+	addition
-	subtraction
*	Multiplication
1	Division
%	modulus
++	Increment
	decrement
+=	Addition assignment
-=	Subtraction assignment

### (2) Relational

:they determine the relationship that one operand has to another

Operator	Result
==	equal to
!=	Not equal to
>	Greater than
<	Less than
>=	Greater than or equal to

### (3) Bitwise

:bitwise operators can be applied to integer types: long,int,short,char and byte

Operator	Result
~	Bitwise unary NOT
&	Bitwise AND
	Bitwise OR
۸	Bitwise exclusive OR
>>	Shift right
<<	Shift left
&=	Bitwise AND assignment

# (4) Logical

:The Boolean logical operators operates only on boolean operands.

All of the binary logical operators combine two boolean values to form a boolean result value.

Operator	Result
&	Logical AND
	Logical OR
۸	Logical exclusive OR
II	Short-circuit OR
&&	Short-circuit AND
!	Logical unary NOT
&=	AND assignment

# (5) Assignment

:The assignment operator is a single equal sign, = ,

The assignment operator works in Java much as it does it any other computer language

# (6) Conditional

:Less than, Greater than, Less than or equal to, Greater than or equal to, Not equal

2. Operator Precedence

Highest						
++(postfix)	++(postfix)					
(prefix)	(prefix)	~	!	+(unary)	-(unary)	(type-cast)
*	1	%				
+	-					
>>	>>>	<<				
>	>=	<	<=	instanceof		
==	!=					
&						
۸						
&&						
II						
?:						
->						
=	op=					
Lowest						

# 3. Control Statement

### 1. Selection

: These statements allow you to control the flow of your program's execution based upon

to

conditions	known	only	during	runtiime.
(1) if				

- (2) Nested ifs
- (3) if-else-if ladder
- (4)switch
- (5)Nested switch

### 2. Iteration

:These statements create loops that repeatedly executes the same set of instructions until a termination condition is met.

- (1) for
- (2) while
- (3) do-while

# 3. Jump

- : These statements transfer control to another part of your program
- (1) break
- (2) continue
- (3) return