



Republic of the Philippines
Department of Education
REGION III
SCHOOLS DIVISION OFFICE OF NUEVA ECIJA

LEARNING ACTIVITY SHEET
SPECIAL PROGRAM IN ICT 9 BASIC
PROGRAMMING 9
Third Quarter, Week 2

Name of Learner: _____ Date: _____

Grade Level /Section: _____

JAVA OPERATOR PRECEDENCE

Background Information for Learners

Operator precedence determines the order in which the operators in an expression are evaluated.

Operator Precedence Table

The table below lists the precedence of operators in Java; higher it appears in the table, the higher its precedence.

Java Operator Precedence	
Operators	Precedence
postfix increment and decrement	<code>++</code> <code>--</code>
prefix increment and decrement, and unary	<code>++</code> <code>--</code> <code>+</code> <code>-</code> <code>~</code> <code>!</code>
multiplicative	<code>*</code> <code>/</code> <code>%</code>
additive	<code>+</code> <code>-</code>
shift	<code><<</code> <code>>></code> <code>>>></code>
relational	<code><</code> <code>></code> <code><=</code> <code>>=</code> <code>instanceof</code>
equality	<code>==</code> <code>!=</code>
bitwise AND	<code>&</code>

bitwise exclusive OR	<code>^</code>
bitwise inclusive OR	<code> </code>
logical AND	<code>&&</code>
logical OR	<code> </code>
ternary	<code>? :</code>
assignment	<code>=</code> <code>+=</code> <code>-=</code> <code>*=</code> <code>/=</code> <code>%=</code>
	<code>&=</code> <code>^=</code> <code> =</code> <code><<=</code> <code>>>=</code>

Example: Operator Precedence

```
class Precedence {
    public static void main(String[] args) {

        int a = 10, b = 5, c = 1, result;
        result = a-++c-++b;

        System.out.println(result);
    }
}
```

Output:

2

The operator precedence of prefix increment (++) is higher than that of subtraction operator (-). Hence,

```
result = a-++c-++b;
```

is equivalent to

```
result = a-(++c)-(++b);
```

or

```
result = 10-(2)-(6);
```

When dealing with multiple operators and operands in a single expression, you can use parentheses like in the above example for clarity. The expression inside the parentheses is evaluated first.

Learning Competency with Code

Use operator precedence to assess a Java expression.

Exercises/Activities

ACTIVITY 1

Direction: Draw the precedence of the following operators inside the box.

1. Logical AND

2. Postfix increment and decrement

3. Equality

4. Relational

5. Multiplicative

ACTIVITY 2

Direction: Analyze the code below and write your answer inside this box:

```
class Precedence {  
    public static void main(String[] args) {  
  
        int a = 35, b = 10, c = 7, result;  
        result = a-++c-++b;  
  
        System.out.println(result);  
    }  
}
```

Write your answer here:

Reflection

Why is it important to know and understand operator precedence in java programming?

References for Learners

<https://www.programiz.com/java-programming/operator-precedence>

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