

## 1. What are the Conditional Operators in Java?

Conditional operators in Java include:

- **Ternary Operator (?:):** A shorthand for `if-else`. Syntax: `condition ? value1 : value2`.

Example: `int result = (a > b) ? a : b;`

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## 2. What are the types of operators based on the number of operands?

- **Unary Operators:** Operate on a single operand (e.g., `++`, `--`, `!`).
  - **Binary Operators:** Operate on two operands (e.g., `+`, `-`, `*`, `/`).
  - **Ternary Operators:** Operate on three operands (e.g., `condition ? value1 : value2`).
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## 3. What is the use of the Switch Case in Java programming?

The **switch case** statement is used to execute one block of code among many alternatives. It is useful for replacing multiple `if-else` conditions when dealing with specific values.

**Syntax:**

java

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```
switch(expression) {  
    case value1:  
        // Code block  
        break;  
    case value2:  
        // Code block  
        break;  
    default:  
        // Code block  
}
```

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## 4. What are the priority levels of arithmetic operations in Java?

Operator precedence determines the order of operations in Java:

1. **Parentheses** `()`: Highest precedence.
  2. **Unary operators**: `+`, `-`, `++`, `--`, `!`.
  3. **Multiplication, Division, Modulus**: `*`, `/`, `%`.
  4. **Addition, Subtraction**: `+`, `-`.
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## 5. What are Conditional Statements and their use in Java?

Conditional statements control the flow of the program based on conditions.

- **Types:**
    1. `if`
    2. `if-else`
    3. `if-else if`
    4. `switch`
  - **Uses:**

Conditional statements allow the program to execute specific blocks of code when certain conditions are met.
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## 6. What is the syntax of the `if-else` statement?

java

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```
if (condition) {  
    // Code block if condition is true  
} else {  
    // Code block if condition is false  
}
```

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## 7. What are the 3 types of iterative statements in Java?

1. **for Loop**: Executes a block of code a specific number of times.
2. **while Loop**: Executes a block of code while a condition is true.

3. **do-while Loop**: Executes a block of code at least once and then continues while the condition is true.

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## 8. Difference between **for** loop and **do-while** loop

Aspect	For Loop	Do-While Loop
<b>Execution</b>	Executes only if the condition is true.	Executes at least once, even if condition is false.
<b>Syntax</b>	<code>for (initialization; condition; update)</code>	<code>do { } while (condition);</code>
<b>Use Case</b>	Preferred when the number of iterations is known.	Preferred when the loop must execute at least once.

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## 9. Program to print numbers from 1 to 10

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```
public class PrintNumbers {  
    public static void main(String[] args) {  
        for (int i = 1; i <= 10; i++) {  
            System.out.println(i);  
        }  
    }  
}
```