

**MCQ 1:** Which operator in Java is used to test if two primitive values are equal?

- (a) =
  - (b) ==
  - (c) !=
  - (d) equals
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**MCQ 2:** Which relational operator checks if the left operand is greater than the right operand?

- (a) >
  - (b) < (c) >=
  - (d) <=
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**MCQ 3:** Which operator is used to check if two operands are not equal in Java?

- (a) <>
  - (b) !=
  - (c) ~=
  - (d) !==
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**MCQ 4:** What is the correct operator to check if one value is less than or equal to another? (a) <=

- (b) =< (c) <==
  - (d) =<=
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**MCQ 5:** Which relational operator checks if one value is greater than or equal to another? (a) >=

- (b) =>
  - (c) >
  - (d) <
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**MCQ 6:** Which unary operator increments a variable's value by one?

- (a) --
  - (b) ++
  - (c) +
  - (d) +=
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**MCQ 7:** Which unary operator decrements a variable's value by one?

- (a) --
  - (b) ++
  - (c) -
  - (d) -=
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**MCQ 8:** What is the main difference between the pre-increment (++x) and post-increment (x++) operators? (a) Pre-increment increments after the value is used, post-increment increments before. (b) Pre-increment increments before the value is used, post-increment increments after. (c) They both increment at the same time. (d) Only pre-increment is valid in Java.

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**MCQ 9:** Which unary operator in Java is used to negate a boolean value?

- (a) -
- (b) ! (c) ~ (d) not

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**MCQ 10:** Which operator returns the original value before performing the increment?

- (a) Pre-increment (++x)
- (b) Post-increment (x++)
- (c) Both return the same value
- (d) Neither; they both return the new value

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**MCQ 11:** Which unary operators are not applicable to boolean types in Java?

- (a) ! (b) ++
- (c) --
- (d) Both ++ and --

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**MCQ 12:** What does the unary minus operator do to a numeric expression?

- (a) Converts a positive number to a negative number
- (b) Increments the number
- (c) Decrements the number
- (d) Leaves the number unchanged

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**MCQ 13:** Which of the following is a valid use of a unary operator in Java?

- (a) `int a = -5;`
- (b) `int a = ++-5;`
- (c) `int a = !5;`
- (d) `int a = --+5;`

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**MCQ 14:** What does the expression `x++` do in Java?

- (a) Increments `x` and returns the new value
- (b) Increments `x` but returns the original value
- (c) Decrements `x` and returns the original value
- (d) Leaves `x` unchanged

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**MCQ 15:** What does the expression `--y` do in Java?

- (a) Returns `y` then decrements it
- (b) Decrements `y` and returns the new value
- (c) Increments `y` and returns the new value
- (d) Returns `y` then increments it

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**MCQ 16:** Which operator is used to get the bitwise complement of a number's bits?

- (a) ! (b) ~ (c) -
- (d) ++

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**MCQ 17:** If `x` is 5, what value does the expression `++x` yield when used in an expression context? (a) 5

- (b) 6
- (c) 4
- (d) Undefined

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**MCQ 18:** If `x` is 5, what value does the expression `x++` yield when used in an expression context? (a) 5

- (b) 6
- (c) 7
- (d) 4

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**MCQ 19:** Which of the following statements is true regarding operator overloading in Java?

- (a) The '+' operator can be overloaded
- (b) The '-' operator can be overloaded
- (c) The '++' operator can be overloaded
- (d) None of the unary operators can be overloaded

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**MCQ 20:** Which of the following is **not** considered a relational operator in Java?

- (a) ==
- (b) !=
- (c) ++
- (d) <=

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**MCQ 21:** In the statement `if(a != b)`, what is being tested?

- (a) Whether `a` is equal to `b`
- (b) Whether `a` is not equal to `b`
- (c) Whether `a` is greater than `b`
- (d) Whether `a` is less than `b`

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**MCQ 22:** Which relational operator would you use to compare the order of two numeric values?

- (a) =
- (b) >
- (c) ==
- (d) All of the above

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**MCQ 23:** What is the result of evaluating the expression `7 < 10` in Java?

- (a) 7
- (b) 10
- (c) true
- (d) false

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**MCQ 24:** Among the following, which group of operators has the highest precedence in Java?

- (a) Unary operators (e.g., ++, --, -)
- (b) Relational operators (e.g., <, >, ==)
- (c) Logical AND operator
- (d) Logical OR operator

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**MCQ 25:** Which of the following demonstrates the proper use of a unary operator on a boolean variable?

- (a) `boolean flag = true; flag = -flag;`
- (b) `boolean flag = true; flag = !flag;`
- (c) `boolean flag = true; flag = ++flag;`
- (d) `boolean flag = true; flag = --flag;`

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**MCQ 26:** In the expression `++a + a++`, which of the following statements best describes the order of operations? (a) Both increments occur before the addition

- (b) The first increment occurs before addition and the second after
- (c) The first increment occurs after addition and the second before
- (d) Both increments occur after the addition

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**MCQ 27:** Which unary operator produces the negative of a numeric expression?

- (a) +
- (b) -
- (c) ! (d) ++

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**MCQ 28:** If `a` is 10, what does the expression `a--` do?

- (a) Returns 10 then decrements `a` to 9
- (b) Returns 9 then decrements `a` to 8
- (c) Returns 10 then increments `a`
- (d) Returns 9 then increments `a`

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**MCQ 29:** Which of the following data types cannot be used with the unary increment (++) and decrement (--) operators in Java?

- (a) float
- (b) int
- (c) char
- (d) boolean

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**MCQ 30:** Which of the following expressions correctly demonstrates the use of the unary minus operator in Java? (a) `int result = -5;`

- (b) `int result = --5;`
- (c) `int result = 5 -;`
- (d) `int result = +5 -;`

## Coding

**MCQ 1:**

```
int x = 10;
int y = x++;
System.out.println(x);
```

What is the output?

- (a) 10
- (b) 11
- (c) 12
- (d) 9

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**MCQ 2:**

```
int a = 5;
int b = ++a;
System.out.println(b);
```

What does this code print?

- (a) 5
- (b) 6
- (c) 7

(d) Compilation error

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**MCQ 3:**

```
int a = 5;
int b = a++;
System.out.println(b);
```

What is the output?

- (a) 5
  - (b) 6
  - (c) 7
  - (d) Runtime error
- 

**MCQ 4:**

```
int a = 3;
System.out.println(-a);
```

What value is printed?

- (a) 3
  - (b) -3
  - (c) 0
  - (d) Compilation error
- 

**MCQ 5:**

```
int x = 4;
System.out.println(++x + x++);
```

What is the result of this expression?

- (a) 9
  - (b) 10
  - (c) 11
  - (d) 8
- 

**MCQ 6:**

```
int a = 10, b = 10;
System.out.println(a == b);
```

What does this print?

- (a) true
  - (b) false
  - (c) 0
  - (d) Compilation error
- 

**MCQ 7:**

```
int a = 7, b = 9;
System.out.println(a != b);
```

What is the output?

- (a) true

- (b) false
  - (c) 7
  - (d) Compilation error
- 

**MCQ 8:**

```
int x = 8;  
System.out.println(x--);
```

What is printed by this statement?

- (a) 7
  - (b) 8
  - (c) 9
  - (d) Runtime error
- 

**MCQ 9:**

```
int x = 8;  
System.out.println(--x);
```

What value does this print?

- (a) 7
  - (b) 8
  - (c) 9
  - (d) Compilation error
- 

**MCQ 10:**

```
int x = 5;  
int y = x;  
System.out.println(++x == y++);
```

What is the output of this expression?

- (a) true
  - (b) false
  - (c) 5
  - (d) Compilation error
- 

**MCQ 11:**

```
int a = 10;  
int b = 5;  
System.out.println(a >= b);
```

What does the code print?

- (a) true
- (b) false
- (c) 10

(d) 5

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**MCQ 12:**

```
int a = 10;
int b = 10;
System.out.println(a <= b);
```

What is the output?

- (a) true
  - (b) false
  - (c) 10
  - (d) 0
- 

**MCQ 13:**

```
int a = 15;
System.out.println(a == 15);
```

What does this print?

- (a) true
  - (b) false
  - (c) 15
  - (d) Compilation error
- 

**MCQ 14:**

```
int a = -5;
System.out.println(-a);
```

What is the output of this code?

- (a) -5
  - (b) 5
  - (c) 0
  - (d) Runtime error
- 

**MCQ 15:**

```
int x = 0;
x++;
System.out.println(x);
```

What value is printed?

- (a) 0
  - (b) 1
  - (c) 2
  - (d) Compilation error
- 

**MCQ 16:**

```
int x = 0;
++x;
System.out.println(x);
```

What is the output?

- (a) 0
  - (b) 1
  - (c) 2
  - (d) Error
- 

**MCQ 17:**

```
int a = 3;  
int b = a++;  
int c = ++a;  
System.out.println(a + b + c);
```

What is the sum printed?

- (a) 11
  - (b) 12
  - (c) 13
  - (d) 14
- 

**MCQ 18:**

```
int x = 7;  
System.out.println(x > 5);
```

What does this code print?

- (a) true
  - (b) false
  - (c) 7
  - (d) Compilation error
- 

**MCQ 19:**

```
int x = 7;  
System.out.println(x < 7);
```

What is the output?

- (a) true
  - (b) false
  - (c) 0
  - (d) Runtime error
- 

**MCQ 20:**

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

What does this print?

- (a) true
- (b) false
- (c) 7
- (d) Compilation error