**Assignment Operators**

**1: Arithmetic Operators**

class Main {

public static void main(String[] args) {

// declare variables

int a = 12, b = 5;

// addition operator

System.out.println("a + b = " + (a + b));

// subtraction operator

System.out.println("a - b = " + (a - b));

// multiplication operator

System.out.println("a \* b = " + (a \* b));

// division operator

System.out.println("a / b = " + (a / b));

// modulo operator

System.out.println("a % b = " + (a % b));

}

}

**Output**

a + b = 17

a - b = 7

a \* b = 60

a / b = 2

a % b = 2

2: Assignment Operators

class Main {

public static void main(String[] args) {

// create variables

int a = 4;

int var;

// assign value using =

var = a;

System.out.println("var using =: " + var);

// assign value using =+

var += a;

System.out.println("var using +=: " + var);

// assign value using =\*

var \*= a;

System.out.println("var using \*=: " + var);

}

}

**Output**

var using =: 4

var using +=: 8

var using \*=: 32

**3.**

public class Test {

public static void main(String args[]) {

int a = 10;

int b = 20;

int c = 0;

c = a + b;

System.out.println("c = a + b = " + c );

c += a ;

System.out.println("c += a = " + c );

c -= a ;

System.out.println("c -= a = " + c );

c \*= a ;

System.out.println("c \*= a = " + c );

a = 10;

c = 15;

c /= a ;

System.out.println("c /= a = " + c );

a = 10;

c = 15;

c %= a ;

System.out.println("c %= a = " + c );

c <<= 2 ;

System.out.println("c <<= 2 = " + c );

c >>= 2 ;

System.out.println("c >>= 2 = " + c );

c >>= 2 ;

System.out.println("c >>= 2 = " + c );

c &= a ;

System.out.println("c &= a = " + c );

c ^= a ;

System.out.println("c ^= a = " + c );

c |= a ;

System.out.println("c |= a = " + c );

}

}

This will produce the following result −

## **Output**

c = a + b = 30

c += a = 40

c -= a = 30

c \*= a = 300

c /= a = 1

c %= a = 5

c <<= 2 = 20

c >>= 2 = 5

c >>= 2 = 1

c &= a = 0

c ^= a = 10

c |= a = 10

**MCQ’s**

**1) An Arithmetic expression in Java involves which Operators or Operations?**

A) Addition (+), Subtraction (-)

B) Multiplication (\*), Division (/)

C) Modulo Division (%), Increment/Decrement (++/--), Unary Minus (-), Unary Plus (+)

D) All the above

Answer [=]

**D**

**2) Choose the Compound Assignment Arithmetic Operators in Java below.**

A) +=, -=

B) \*=, /=

C) %=

D) All the above

Answer [=]

**D**

**3)**

**What is the output of the below Java code snippet?**

**int a = 2 - - 7;**

**System.out.println(a);**

A) -5

B) 10

C) 9

D) Compiler Error

Answer [=]

**C**

**Explanation:**

**Minus of Minus is Plus. So 2 - - 7 becomes 2+7.**

**4)**

**What is the output of Java code snippet below?**

**short p = 1;**

**short k = p + 2;**

**System.out.println(k);**

A) 1

B) 2

C) 3

D) Compiler error

Answer [=]

**D**

**Explanation:**

**Numbers are treated as int type by default. So an int value cannot be assigned to a short variable. You have to type cast the whole expression.**

**short k = (short)(p + 2);**

**5)**

**What is the output of Java code snippet?**

**short k=1;**

**k += 2;**

**System.out.println(k);**

A) 1

B) 2

C) 3

D) Compiler error about Type Casting

Answer [=]

**C**

**Explanation:**

**Compound assignment operators automatically convert the expression value to the left-hand side data type.**

**k = k + 1; //Error**

**k += 1; //Works**

**k++; //Works**

**6)**

**What is the output of the Java code snippet?**

**int a=5, b=10, c=15;**

**a -= 3;**

**b \*= 2;**

**c /= 5;**

**System.out.println(a +" " + b + " " + c);**

A) 2 20 3

B) 2 20 5

C) 2 10 5

D) -2 20 3

Answer [=]

**A**

**Explanation:**

**a = a - 3;**

**b = b\*2;**

**c = c/5;**

**7)**

**How do you rewrite the below Java code snippet?**

**int p=10;**

**p = p%3;**

A)

p=%3;

B)

p%=3;

C)

p=3%;

D) None of the above

Answer [=]

**B**

**8) Which is the arithmetic operator in Java that gives the Remainder of Division?**

A) /

B) @

C) %

D) &

Answer [=]

**C**

**Explanation:**

**//Modulo Division operator**

**// or simply Modulus Operator**

**int a = 14%5;**

**//a holds 4**

**5)14(2**

**-10**

**------**

**4**

**9) Arithmetic operators +, -, /, \*  and % have which Associativity?**

A) Right to Left

B) Left to Right

C) Right to Right

D) Left to Left

Answer [=]

**B**

**10) Between Postfix and Prefix arithmetic operators in Java, which operators have more priority?**

A) Postfix operators have more priority than Prefix operators

B) Prefix operators have more priority than Postfix operators

C) Both Prefix and Postfix operators have equal priority

D) None of the above

Answer [=]

**A**

**Explanation:**

**op++, op-- have more priority than --op, ++op.**