1….public class AlltheOperaters

{

public static void main(String[] args) {

// Arithmetic operators

int a = 10;

int b = 5;

int sum = a + b;

int difference = a - b;

int product = a \* b;

int quotient = a / b;

int remainder = a % b;

System.out.println("Arithmetic Operators:");

System.out.println(sum);

System.out.println(difference);

System.out.println(product);

System.out.println(quotient);

System.out.println(remainder);

// Relational operators

int isEqual = (a == b)? 1:0;

int isNotEqual = (a != b)? 1:0;

int isGreater = (a > b)?1:0;

int isLess = (a < b)?1:0;

int isGreaterOrEqual = (a >= b)?1:0;

int isLessOrEqual = (a <= b)?1:0;

System.out.println("\nRelational Operators:");

System.out.println(isEqual);

System.out.println(isNotEqual);

System.out.println(isGreater);

System.out.println(isLess);

System.out.println(isGreaterOrEqual);

System.out.println(isLessOrEqual);

// Logical operators

int condition1 = 1;

int condition2 = 0;

int logicalAnd = (condition1!=0 && condition2!=0)?1:0;

int logicalOr = (condition1!=0 || condition2!=0)?1:0;

int logicalNot1 = (condition1==0)?1:0;

int logicalNot2 = (condition2==0)?1:0;

System.out.println("\nLogical Operators:");

System.out.println(logicalAnd);

System.out.println(logicalOr);

System.out.println(logicalNot1);

System.out.println(logicalNot2);

// Assignment operators

int x = 10;

x += 5;

int y = 7;

y -= 3;

int z = 2;

z \*= 4;

System.out.println("\nAssignment Operators:");

System.out.println(x);

System.out.println(y);

System.out.println(z);

// Increment and decrement operators

int count = 5;

count++;

int value = 10;

value--;

System.out.println("\nIncrement and Decrement Operators:");

System.out.println(count);

System.out.println(value);

// Bitwise operators

int n1 = 5;

int n2 = 3;

int bitwiseAnd = n1 & n2;

int bitwiseOr = n1 | n2;

int bitwiseComplement = ~n1;

System.out.println("\nBitwise Operators:");

System.out.println(bitwiseAnd);

System.out.println(bitwiseOr);

System.out.println(bitwiseComplement);

}

}

2…public class WrapperClassExample {

public static void main(String[] args) {

// Integer wrapper class

Integer myInt = Integer.valueOf(42);

int intValue = myInt.intValue();

System.out.println("Integer Value: " + myInt);

System.out.println("Unboxed Integer Value: " + intValue);

// Double wrapper class

Double myDouble = Double.valueOf(3.14);

double doubleValue = myDouble.doubleValue();

System.out.println("\nDouble Value: " + myDouble);

System.out.println("Unboxed Double Value: " + doubleValue);

// Character wrapper class

Character myChar = Character.valueOf('A');

char charValue = myChar.charValue();

System.out.println("\nCharacter Value: " + myChar);

System.out.println("Unboxed Character Value: " + charValue);

// Boolean wrapper class

Boolean myBoolean = Boolean.valueOf(true);

boolean booleanValue = myBoolean.booleanValue();

System.out.println("\nBoolean Value: " + myBoolean);

System.out.println("Unboxed Boolean Value: " + booleanValue);

// Autoboxing and autounboxing

Integer autoboxInt = 10; // autoboxing

int autounboxInt = autoboxInt; // autounboxing

System.out.println("\nAutoboxed Integer Value: " + autoboxInt);

System.out.println("Autounboxed Integer Value: " + autounboxInt);

// Parsing from String to Wrapper class

String numberStr = "123";

Integer parsedInt = Integer.parseInt(numberStr);

System.out.println("\nParsed Integer Value: " + parsedInt);

// Converting from Wrapper class to String

Double doubleObj = 3.14159;

String doubleStr = doubleObj.toString();

System.out.println("\nConverted Double Value to String: " + doubleStr);

}

}

3..public class Shiftoperator

{

public static void main(String[] args) {

// Left shift operator (<<)

int num1 = 10;

int leftShiftResult = num1 << 2;

System.out.println("Left Shift Result: " + leftShiftResult);

// Right shift operator (>>)

int num2 = 10;

int rightShiftResult = num2 >> 2;

System.out.println("Right Shift Result: " + rightShiftResult);

}

}