9. Write a program in Java to verify implementations of arrays

**package** arrayverification;

**public** **class** ArrayVerification {

**public** **static** **void** main(String[] args) {

// Declaring and initializing an array

**int**[] numbers = {5, 10, 15, 20, 25};

// Accessing elements of the array

System.***out***.println("Element at index 2: " + numbers[2]);

// Modifying elements of the array

numbers[3] = 30;

System.***out***.println("Updated element at index 3: " + numbers[3]);

// Array length

**int** length = numbers.length;

System.***out***.println("Array length: " + length);

// Iterating over an array using a for loop

System.***out***.print("Array elements: ");

**for** (**int** i = 0; i < numbers.length; i++) {

System.***out***.print(numbers[i] + " ");

}

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

// Iterating over an array using an enhanced for loop

System.***out***.print("Array elements (enhanced for loop): ");

**for** (**int** num : numbers) {

System.***out***.print(num + " ");

}

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

// Sorting an array

java.util.Arrays.*sort*(numbers);

System.***out***.print("Sorted array: ");

**for** (**int** num : numbers) {

System.***out***.print(num + " ");

}

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

}

}

Output:

