**WEEK-5 SAMPLE PROGRAMS 1.**



**Program:**

import java.util.Scanner; public class MinElementDigitSum {

public static void main(String[] args) {

Scanner scanner = new Scanner(System.in);

System.out.print("Enter the number of elements in the array: "); int size = scanner.nextInt(); if (size <= 0) {

System.out.println("Array size must be greater than zero.");

return;

}

int[] array = new int[size];

System.out.println("Enter the elements of the array:");

for (int i = 0; i < size; i++) {

array[i] = scanner.nextInt();

}

int minElement = array[0];

for (int i = 1; i < size; i++) { if (array[i] < minElement) { minElement = array[i];

}

}

int sumOfDigits = 0; int number = minElement; while

(number > 0) { sumOfDigits

+= number % 10;

number /= 10;

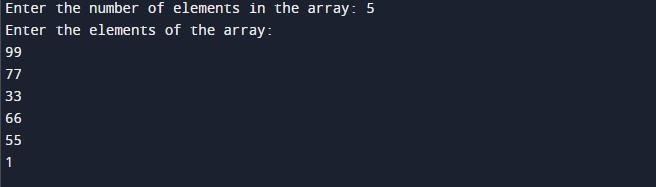
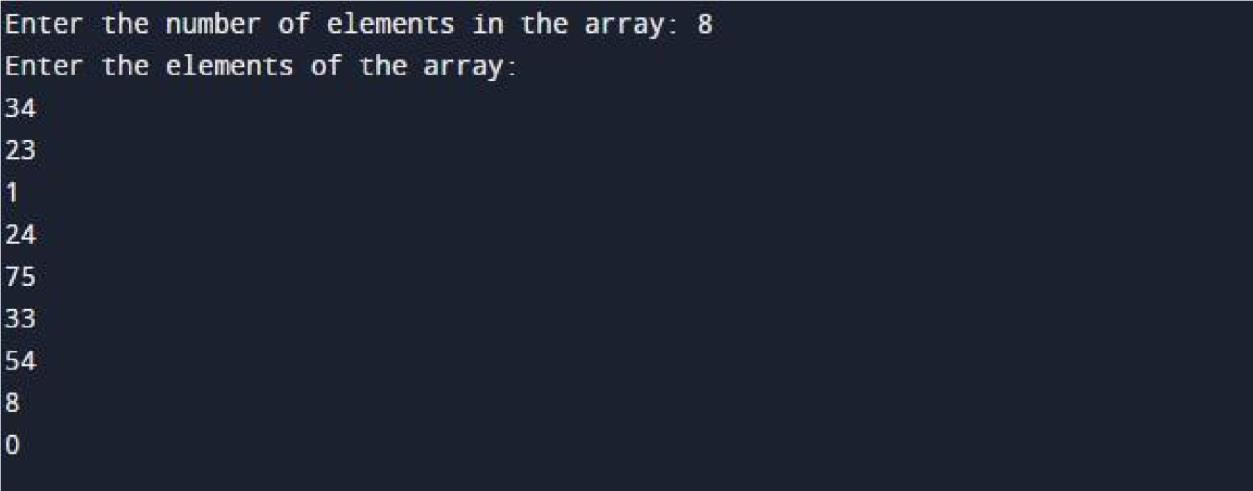
}

System.out.println(sumOfDigits % 2 == 0 ? 1 : 0);

}

}

**Output:**



**2.**



**Program:**

import java.util.Scanner; public class DigitSumCalculator { public static void main(String[] args) {

Scanner scanner = new Scanner(System.in);

System.out.println("Enter the number of elements in the array:"); int n = scanner.nextInt(); int[] input = new int[n]; System.out.println("Enter the elements of the array:");

for (int i = 0; i < n; i++) {

input[i] = scanner.nextInt();

}

int finalSum = calculateFinalSum(input);

System.out.println("Final result = " + finalSum);

}

public static int calculateFinalSum(int[] input) { int finalSum = 0; for (int i = 0; i < input.length; i++) { int currentNumber =

input[i]; int digitPosition = i + 1; int digit =

getDigitAtPosition(currentNumber, digitPosition); finalSum += digit \* digit;

}

return finalSum;

}

public static int getDigitAtPosition(int number, int position) { String numberStr = Integer.toString(number); int length = numberStr.length(); if (length < position) {

return 0;

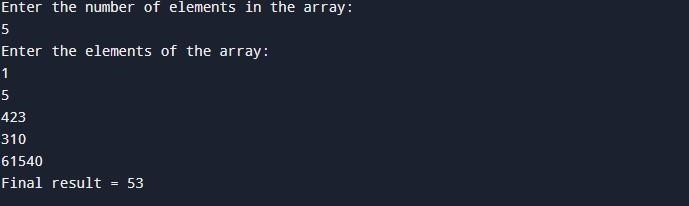
}

char digitChar = numberStr.charAt(length - position); return Character.getNumericValue(digitChar);

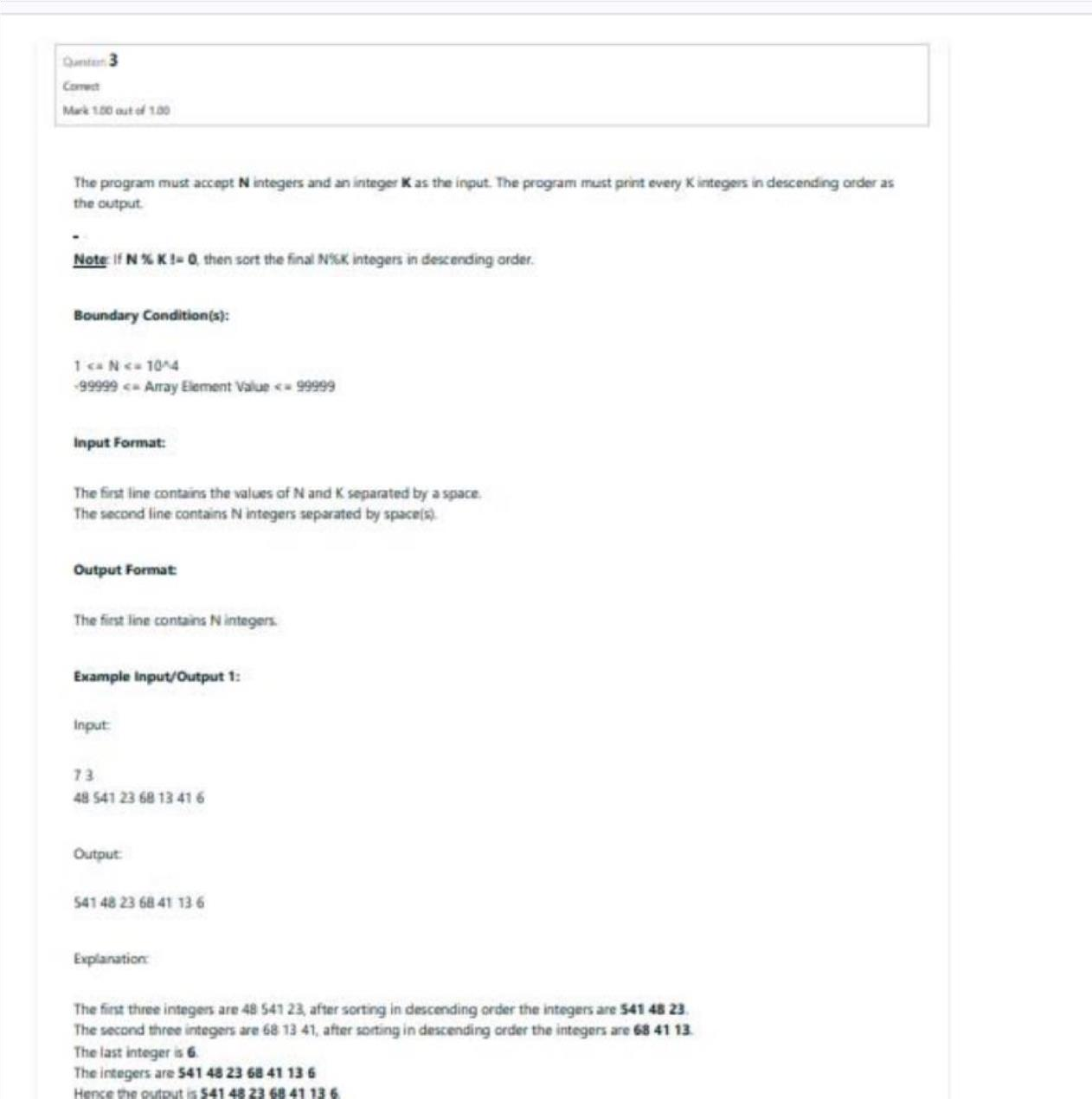
}

}

**Output:**



**3.**



**Program:**

import java.util.Arrays; import

java.util.Scanner; public class SegmentSorter { public static void main(String[] args) { Scanner scanner = new Scanner(System.in); System.out.println("Enter the values of N and K:"); int N = scanner.nextInt(); int K = scanner.nextInt();

System.out.println("Enter the " + N + " elements:"); int[] arr = new int[N]; for (int i = 0; i < N; i++) { arr[i] = scanner.nextInt();

}

for (int i = 0; i < N; i += K) { int end = Math.min(i + K, N); Arrays.sort(arr, i, end); reverse(arr, i, end - 1);

}

for (int num : arr) {

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

}

}

public static void reverse(int[] arr, int start, int end) { while (start < end) { int temp = arr[start]; arr[start]

= arr[end]; arr[end] = temp;

start++;

end--;

}

}

}

**Output:**

