Experiment - 1

1. Write a Java program that prompts the user to input an integer between 0 and 1000. Implement logic to calculate the multiplication of all digits in the entered integer. For example, if an integer is 932, the multiplication of all its digits is 54.

2. Write a program that reads two integers, determines whether the first is a multiple of the second and prints the result.
   [Hint: Use the remainder operator.]

3. Write a Java program that reads an array of integers and then moves every zero to the right side i.e. towards the end.

4. Write a program that reads an arbitrary number of even integers that are in the range 2 to 100 inclusive and counts how many occurrences of each are entered. Indicate the end of the input by entering -1. After all input has been processed, print all of the values that were entered by the user along with the number of occurrences.

5. In computer science, the maximum sum subarray problem is the task of finding a contiguous subarray with the largest sum, within a given one-dimensional array A(1...n] of numbers. Formally, the task is to find indices and with, such that the sum is as large as possible.
   Example:
   Input : int[] A = {1, 2, -3, -4, 0, 6, 7, 8, 9}
   Output: The largest sum of contiguous sub-array: 30