Java Assignment Exam-2022

1. Write a Java program that will accept an integer and convert it into a binary representation.
Now count the number of bits equal to zero and one in this representation.

Expected Input/Output:
Input first number: 25
Binary representation of 25 is: 11001
Number of zero bits: 2
Number of zero bits: 3

2. Write a Java program to divide the two given integers using the subtraction operator.

Expected Input/Output:
Input the dividend: 625
Input the divider: 25
Result: 25.0

3. Write a Java program to multiply two given integers without using the multiply operator (*).

Expected Input/Output:

Input the first number: 25
Input the second number: 5
Result: 125

4. Write a Java program to reverse a sentence (assume a single space between two words)
without reverse every word.

Expected Input/Output:

Input a string: The quick brown fox jumps over the lazy dog
Result: dog lazy the over jumps fox brown quick The

5. Write a Java program to accept two strings and test if the second string contains the first one.

Expected Input/Output:

Input first string: Once in a blue moon
Input second string: See eye to eye
If the second string contains the first one? No
Input second string: blue moon
If the second string contains the first one? Yes

6. Write a Java program to accept a positive number and repeatedly add all its digits.

Expected Input/Output:
Input a positive integer: 25
Digit sum: 7

7. Write a Java program that reads a text (only alphabetical characters and spaces) and prints two words. The first one is the word which is frequently used in the text. The second one is the word with the maximum length.

Expected Input/Output:
Input a text in a line: Thank you for your comment and your participation.
Most frequent word is: your
Word with maximum length: participation

N.B.: To solve the above problems it is expected to take input from the main method in a class and create another class(s) with necessary methods to solve the problem and return value to the main method to display it within main method.