Review Exercises (Optional)

1. Write a program to print a welcome text in a separate line.

2. Write a program to print the sum of two numbers using variables.

3. Write a program to find the size of fundamental data types.

4. Write a program to check the upper and lower limits of integer.

5. Write a program showing **string** manipulation.
   Sample Output:

   The string:: welcome, dear student
   The length of the string:: 21
   The char at index 3 of the string:: c
   The char at index 1 of the string [using array]:: e
   Is the string empty:: 0
   Retrieve the sub-string from 10th position for 4 characters:: dear
   Replace the previous sub-string by 'good':: welcome, good student

6. Write a program to read a sequence of integers and print mode values of the sequence. The number of integers is greater than or equals to 1 and less than or equals to 100.
   Note: The mode of a set of data values is the value that appears most often.

7. Write a program to check whether the sequence of the numbers in a given array is a "Arithmetic" or "Geometric" sequence. Return -1 if the sequence is not "Arithmetic" or "Geometric".
   Note: an arithmetic sequence is a sequence of numbers, where the difference between the consecutive terms is constant (e.g., the sequence 5, 7, 9, 11, 13, 15, . . . is an arithmetic sequence with common difference of 2). A geometric sequence is a sequence of numbers such that each term after the first is found by multiplying the previous one by a fixed, non-zero number called the common ratio (e.g., the sequence 2, 6, 18, 54, ... is a geometric sequence with common ratio 3).

8. Write a program to sum of all positive integers in a sentence.
   Sample string: There are 7 chairs, 10 desks, 3 blackboard and 5 fans.
   Output: 25

9. Write a program to read three ints and to print them in ascending order.