Week 4 Exercises

Exercise 4.1: Reverse Word

Instruction: Name your class ReverseWord.

Write a program that reverses each word in a given sentence/string with special symbols removed (e.g. ? / @ ! . $, ^ &) then convert all letters to uppercase.

Sample Input	Sample Output
How are you?	WOH ERA UOY
Roger Federer	REGOR REREDEF

Note: Try adopting the concept of modular programming. Create some helper methods if needed. Consider creating a method with the following suggested signature:

- `public static String reverse(String word)`

Exercise 4.2: Matrix Calculation

Instruction: Name your class MatrixCalculation.

Implement the following methods. Then write a program to test your method.

- `int[][] add(int[][] matrixA, int[][] matrixB)`
- `int[][] multiply(int[][] matrixA, int[][] matrixB)`
- `void print2DArray(int[][] matrix)`

Exercise 4.3: ABC

Instruction: Name your class ABCSolver.

Given 3 positive integers, A B and C, where the 3 values assigned to them may not be arranged in order. The only thing we know is that A is less than B and B is less than C.

Problem

Arrange the values in the order specified

Input

The first line holds 3 values (A, B and C), which may not be in sorted order. All values are positive integers no more than 100.

The second line holds 3 English characters, A B and C without any spaces in between them, specifying the order of the value that is required.

Output

One line of output showing all the values (each separated by a whitespace) sorted in the order specified.

Sample Input	Sample Output
1 5 3 ABC	1 3 5
6 4 2 CAB	6 2 4