* CSCI 1302 Lab # 4 Multidimensional Arrays  
    
  Programming Exercise 8.5 (Algebra: add/subtract two matrices)  
    
  Write a method to add/subtract two matrices. The header of the method is as follows:  
    
  public static double[][] addMatrix(double[][] a, double[][] b  
    
  or  
    
  public static double[][] subtractMatrix(double[][] a, double[][] b  
    
  In order to be add/subtract, the two matrices must have the same dimensions and the same or compatible types of elements. Let c be the resulting matrix. Each element cij is aij + bij. For example, for two 3 \* 3 matrices a and b, c is  
    
  Write a test program that prompts the user to enter two 3 \* 3 matrices and displays their sum or differece. Here is a sample run  
    
    
    
  Programming Exercise 8.6 (Algebra: multiply two matrices)  
    
  Write a method to multiply two matrices. The header of the method is:  
    
  public static double[][] multiplyMatrix(double[][] a, double[][] b)  
    
  To multiply matrix a by matrix b, the number of columns in a must be the same as the number of rows in b, and the two matrices must have elements of the same or compatible types. Let c be the result of the multiplication. Assume the column size of matrix a is n. Each element cij is ai1 \* b1j + ai2 \* b2j + c + ain \* bnj. For example, for two 3 \* 3 matrices a and b, c is  
    
  where cij = ai1 \* b1j + ai2 \* b2j + ai3 \* b3j. Write a test program that prompts the user to enter two 3 \* 3 matrices and displays their product. Here is a sample run:

He said there could be 3 separate files for addition, subtraction, and multiplication or 3 methods