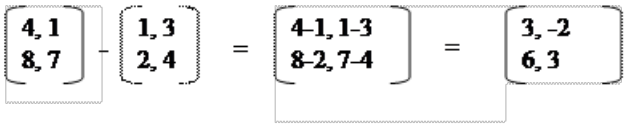
Lab 11
Matrix Subtraction

Objective:

Write a program that can create two matrices and then subtracts them!

- The user first inputs the size length and width
- The user then inputs the size length and width of the next matrix
- Next the user populates that matrices with data
- The program must check to see if the dimensions match. Matrix subtraction requires the size of both to be the same. If they are not then print "Cannot subtract these! Dimension mismatch"
- If they do match correctly then create a new matrix and put the newly subtracted info inside of it.
    - Subtract each component wise, so A[1][1] +-B[1][1] = C[1][1]



Example Dialog:

```
Welcome to the matrix subtracting program

Please enter the length of the first matrix
2
Please enter the height of the first matrix
2
Please enter the length of the second matrix
2
Please enter the height of the second matrix
2

Please enter a value for matrix 1 space 1, 1
4
Please enter a value for matrix 1 space 1, 2
1
Please enter a value for matrix 1 space 2, 1
8
Please enter a value for matrix 1 space 2, 2
7

Please enter a value for matrix 2 space 1, 1
1
Please enter a value for matrix 2 space 1, 2
3
Please enter a value for matrix 2 space 2, 1
2
Please enter a value for matrix 2 space 2, 2
4


4 1
8 7
-
```

```
1 3
2 4
=
3 -2
6 3
DONE!
```

Lab Report Questions:

1. Draw a flow chart of the solution and include that in the proposed solution section
2. Is it possible to have "ragged" arrays in Java?

Finally:

Upload the .java file to the dropbox