Problem 3.2.6. See handout. As per the problem, write a program that uses a recursive algorithm to compute the determinant of a matrix (If you refer to a Linear Algebra text, you may find the minors are called co-factors). It should read a matrix, print it out, compute, and print the determinant. Your program should be able to evaluate multiple matrices on a single execution. For class purposes, your program should handle matrices up to and including those of order 6. In a real application, the sizes could be much larger. You are required to use an array for this problem. Your solution must be recursive.

Justify your data structures. Consider an iterative implementation. Would it be more efficient? What data structures would you choose in that case?

As a minimum, use the following eight matrices to test your program, formatted as shown to the right.

[5]

```
2  3
5  9
```

```
 3 -2  4
-1  5  2
-3  6  4
```

```
2  4  5  6
0  3  6  9
0  0  9  8
0  0  0  5
```

```
2  4  5  6
0  0  0  0
0  0  9  8
0  0  0  5
```

```
2  0  0  0
0  3  0  0
0  0  9  0
0  0  0  5
```

```
2  4  0  6
1  3  0  0
```

4 0 0 8
2 5 0 5

6 4 6 4 6 4
1 2 3 4 5 6
6 5 4 3 2 1
3 2 3 2 3 2
4 6 4 6 4 6
1 1 1 1 1 1

SAMPLE INPUT
1
5
2
2 3
5 9
3
3 -2 4
-1 5 2
-3 6 4
Etc.