

**Problem 5****60 Points****Sudoku Senior****Program Name:** sudoku2.java**Input File:** sudoku2.in

1			3
			4
	2		
4			

Write a program that solves sudoku puzzles.

The rules are the same as in the previous sudoku problem, and only one valid solution exists to each puzzle.

**Input**

The first line of input will contain a single integer  $n$  indicating the number of data sets to process. The remainder of the input consists of  $n$  unsolved sudoku boards. Blank cells are indicated by a period ('.').

**Output**

For each sudoku board in the input, display the following:

1. A single line, "Data Set #X" where X is 1 for the first board, 2 for the second, etc.
2. The solved sudoku board.

**Example Input File**

```
2
1..3
...4
.2..
4...
1..3
2...
..3.
...1
```

**Example Output To Screen**

```
Data Set #1
1423
2314
3241
4132
Data Set #2
1423
2314
4132
3241
```