Junior Division
SUDOKU

PROBLEM: The 9x9 grid below is a Sudoku puzzle. Sudoku puzzles are all the rage in the newspapers in London, England and now in US cities. This puzzle is a sample from the www.sudoku.com web site. The object of the puzzle is to place the digits 1 – 9 in the puzzle such that each digit appears just once in each row and each column. Further, each digit can only appear once in each of the bounded 3X3 grids. In this program you will not be asked to solve the puzzle, but will be asked to list the possible digits for a given cell of the grid.

	5			1			4	
1		7				6		2
			9		5			
2		8		3		5		1
	4			7			2	
9		1		8		4		6
			4		1			
3		4				7		9
	2			6			1	

INPUT: There will be 14 lines of input. Each of the first 9 lines will represent one row of the grid. Blanks will be represented by 0's. The first line of the grid above would be represented by: 0,5,0,0,1,0,0,4,0. The first 0 is at location (1,1) and the adjacent 5 is at location (1,2). Although the digits are shown separated by commas, the first 9 lines can be entered in any manner. The last 5 lines will each contain 2 digits representing a row and column number.

OUTPUT: For each row and column number, print all the possible digits that could occupy that grid location. The digits can be printed in any order.

SAMPLE INPUT

1. 0,5,0,0,1,0,0,4,0   10. 4,2
2. 1,0,7,0,0,0,6,0,2   11. 4,8
3. 0,0,0,9,0,5,0,0,0   12. 6,8
4. 2,0,8,0,3,0,5,0,1   13. 8,8
5. 0,4,0,0,7,0,0,2,0   14. 3,5
6. 9,0,1,0,8,0,4,0,6
7. 0,0,0,4,0,1,0,0,0
8. 3,0,4,0,0,0,7,0,9
9. 0,2,0,0,6,0,0,1,0

SAMPLE OUTPUT

1. 6,7
2. 7,9
3. 3,7
4. 5,6,8
5. 2,4