

American Computer Science League

2015 - 2016

Contest #3

Junior Division Programming Problem: ACSL ABC

PROBLEM: *Easy as ABC* is a puzzle game by Wei-Hwa Huang. In the puzzle the letters A, B and C are placed in the grid so that each letter appears just once in each row and column. In addition some letters will be placed in the puzzle at the start of the game. The game is played on a 3 x 3 grid.

1	2	3
4	5	6
7	8	9

A		C
	A	

A	B	C
B	C	A
C	A	B

INPUT: There will be 5 lines of input. Each line will contain the number of letters in the grid at the start of the game followed by their location (see the left grid) and the letter at that location. The data for middle grid is Sample Data #1; the solution for data is at the right.

OUTPUT: For each input line print the resulting grid with the letters in the correct positions. The letters must be printed on one line in grid number order 1 – 9.

SAMPLE INPUT:

- 3, 1, A, 3, C, 8, A
- 3, 1, A, 6, C, 8, B
- 3, 1, B, 6, B, 9, C
- 2, 1, C, 5, B
- 2, 3, B, 7, A

SAMPLE OUTPUT:

- ABCBCACAB
- ACBBACCBA
- BCACABABC
- CABABCBCA
- CABBCCAABC

TEST DATA**TEST INPUT**

1. 4, 1, A, 2, B, 8, A, 9, B
2. 3, 1, A, 2, B, 9, A
3. 3, 3, C, 6, B, 7, C
4. 2, 7, A, 6, C
5. 2, 1, C, 6, A

TEST OUTPUT

1. ABCBCACAB
2. ABCCABBCA
3. BACACBCBA
4. CBABACACB
5. CABBCAABC