



2014 - 2015



ACSL
American Computer Science League


Contest #3

ACSL Isola
Intermediate Division

43	44	45		47	48	49
36	37	38	39	40	41	42
29	30	31	32	33	34	35
22	23	24	25	26	27	28
15	16	17	18	19	20	21
8	9	10	11	12	13	14
1	2	3		5	6	7

PROBLEM: ACSL Isola is a board game played by 2 players with each player having just one marker. The game has 49 grid squares as shown above. The 49 grid squares have removable numbered tiles. The players move in turn and can move horizontally in either direction, vertically in either direction and diagonally in every direction. The marker can move in the selected direction until it is adjacent to the opposing marker or reaches the boundary of the board. After the move, the player removes all the tiles in the path moved. Once a tile is removed it too becomes a boundary and cannot be landed on or passed over. The object of the game is to be the last player to be able to make a move.

INPUT: There will be 5 lines of input. Each line will give the location numbers of the  and  symbols and the list of numbered tiles already removed. That list will end with a zero.

OUTPUT: For each input line, it will always be the  turn to move. Print the longest list of tile numbers in any order that can be removed by the move. We guarantee the longest list will be unique for each input line. If the marker can't move print NONE.

SAMPLE INPUT

1. 40, 42, 10,49, 0
2. 33, 32, 39, 25, 20, 24, 0
3. 22, 29, 32, 43, 5, 0
4. 44, 32, 39, 33, 25, 24, 31, 0
5. 25, 26, 33, 27, 19, 32, 34, 18, 20, 0

SAMPLE OUTPUT

1. 35, 28, 21, 14, 7
2. 29, 30, 31
3. 23, 17, 11
4. 26, 20, 14
5. NONE

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PRINT FORMATNG
Intermediate Division
TEST DATA

TEST INPUT

1. 24, 4, 5, 12, 10, 3, 0
2. 24, 4, 5, 3, 10, 11, 0
3. 24, 12, 11, 13, 19, 0
4. 24, 18, 15, 21, , 6, 39, 0
5. 1, 2, 3, 10, 9, 8, 0

TEST OUTPUT

1. 11, 18, 25, 32, 39, 46
2. 12, 20, 28
3. 20, 28
4. 26, 34, 42
5. NONE