**Senior Division**
ACSL Grid Fit

**PROGRAM**:  Given the 5 X arrangement patterns and a 7 x 5 grid that follows, fit the pattern into the grid.  The X patterns must be thought of as entering from the top of the grid.  The patterns can't pass through any filled grid square.

| 1.  X | 2.  X | 3.  X X | 4.  X X | 5.  X |
| | X | | X | X X |

| 31 | 32 | 33 | 34 | 35 |
|----|----|----|----|----|
| 26 | 27 | 28 | 29 | 30 |
| 21 | 22 | 23 | 24 | 25 |
| 16 | 17 | 18 | 19 | 20 |
| 11 | 12 | 13 | 14 | 15 |
| 6 | 7 | 8 | 9 | 10 |
| 1 | 2 | 3 | 4 | 5 |

**INPUT**:  The grid is labeled 1 – 35 as shown.  There will be 6 lines of input.  The first line will contain a positive integer telling the number of grid squares that will initially be filled and will be followed by a list of those grid square numbers.  Input lines 2 – 6 will give the number of the X arrangement to use.

**OUTPUT**:  Print the lowest grid square number where the arrangement will fit.  No filled grid square can be used in the placement of the arrangement.  Once the X's have been placed, those grid squares are considered filled.   If no placement is possible, print NONE.

**SAMPLE INPUT**                                    **SAMPLE OUTPUT**

1.  7,  1,  2,  4,  5,  6,  7,  14               1.  3
2.  1                                            2.  8
3.  2                                            3.  11
4.  3                                            4.  16
5.  4                                            5.  18
6.  5