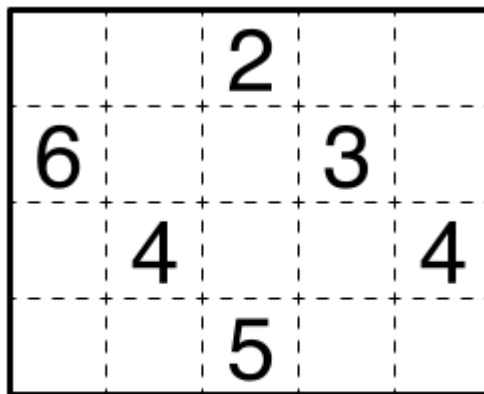School Name: _____

## Fixomino (13 puzzles, 380 points total)

Partition the grid into regions with the sizes given below the grid. Regions must contain whole unit squares only and be contiguous by side - two squares that touch only at a point are not considered contiguous. A square containing a number must be contained in the region of that number's size.

Fixomino 1 (10 points)

2, 3, 4, 5, 6

Fixomino 2 (10 points)
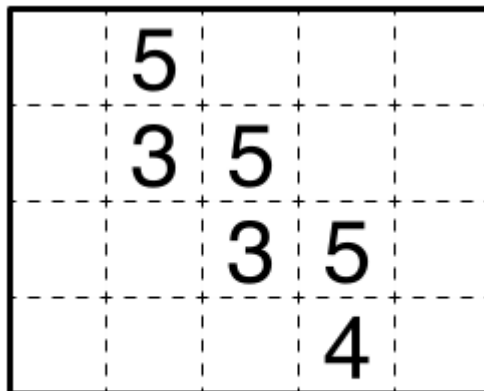
2, 3, 4, 5, 6

Fixomino 3 (10 points)

				5
3	4	5	6	7
7				

3, 4, 5, 6, 7

Fixomino 4 (10 points)

			7	
			6	4
3	7			
	6			

3, 4, 5, 6, 7

Fixomino 5 (10 points)

	7	4		
7				7
		3	6	

3, 4, 5, 6, 7

Fixomino 6 (10 points)

	5			
				7
		4		
7				
			4	

3, 4, 5, 6, 7

Fixomino 7 (30 points)

7	9	7
9	8	5
9		4

4, 5, 6, 7, 8, 9

Fixomino 8 (30 points)

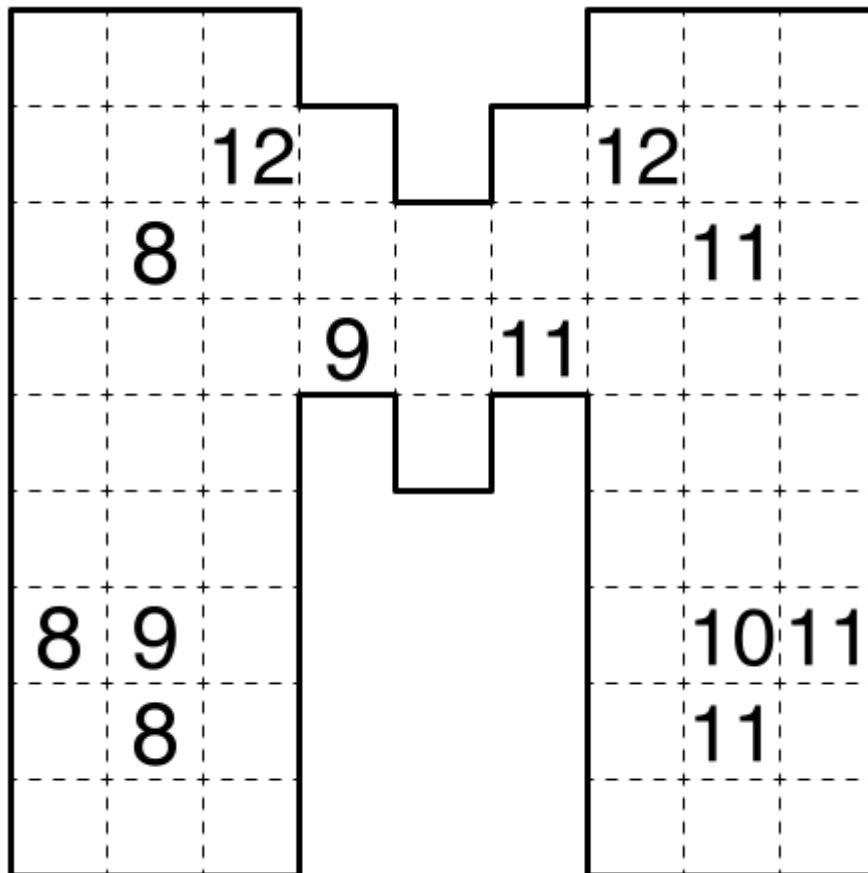| | | | 9 |
	12	10	
10			10
	10	12	
12			

9, 10, 11, 12

Fixomino 9 (30 points)

6, 7, 8, 9, 10

Fixomino 10 (30 points)

7, 8, 9, 10, 11

Fixomino Mu (60 points)

6, 7, 8, 9, 10, 11, 12

Fixomino Alpha (60 points)

15

15   17   15   16

16   17

15   16

15   17
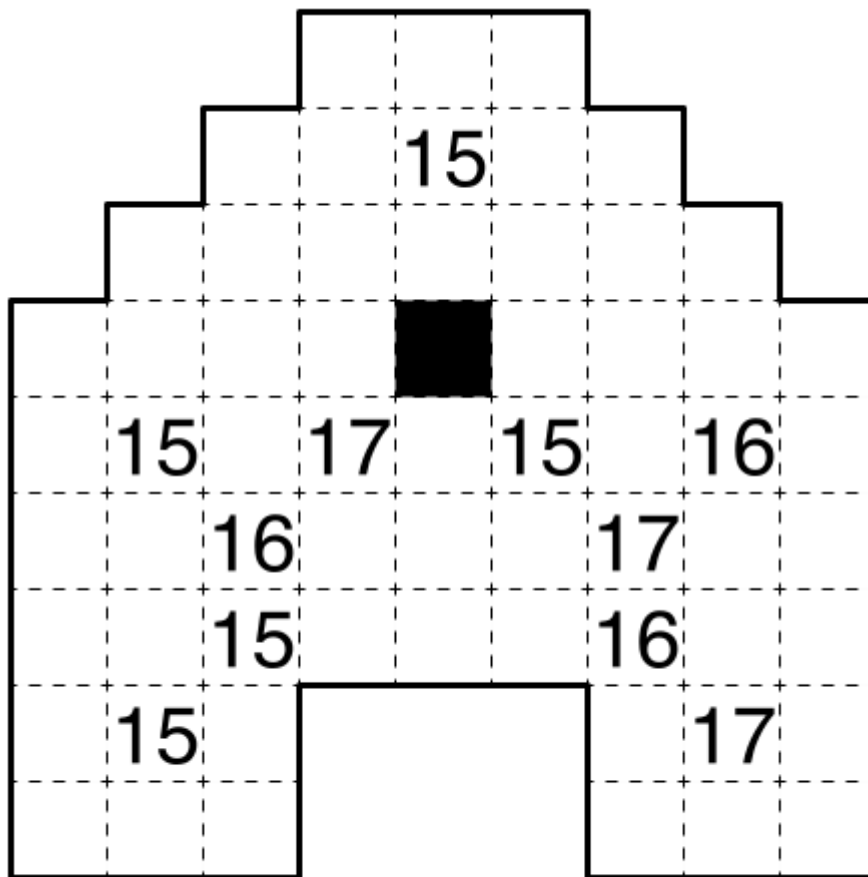
14, 15, 16, 17

Fixomino Theta (80 points)
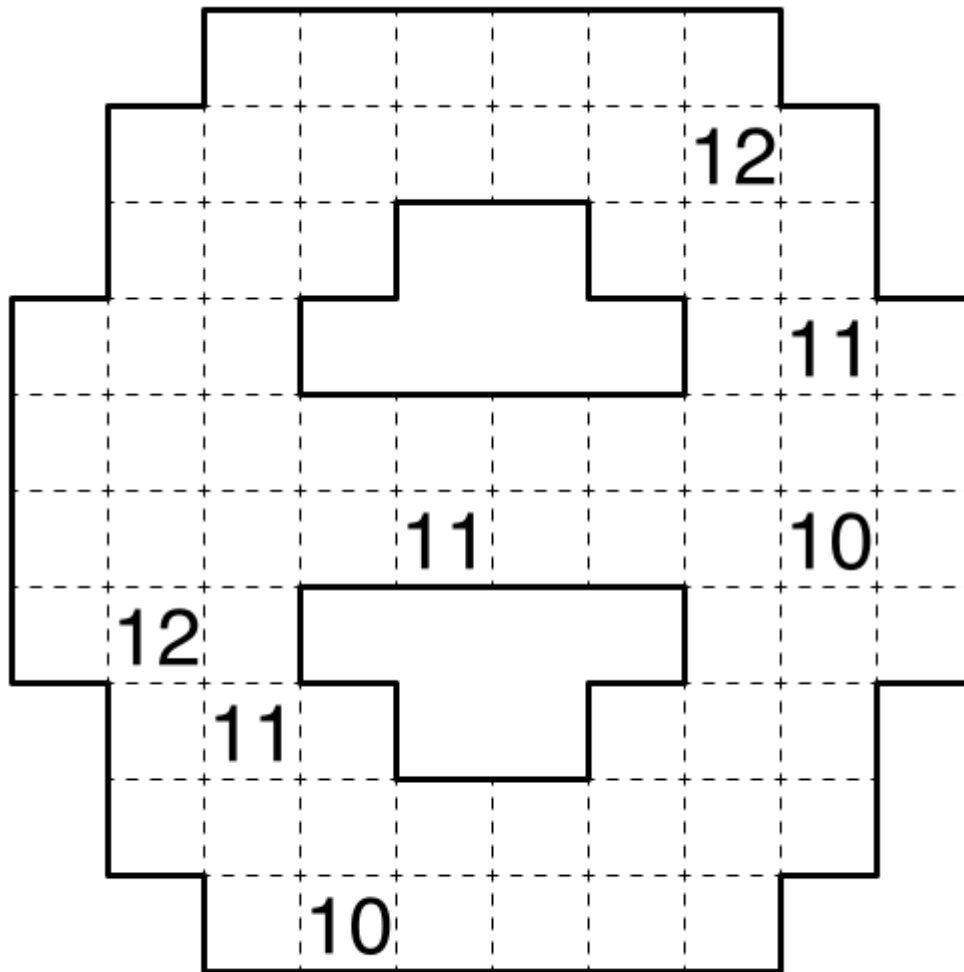
4, 5, 6, 7, 8, 9, 10, 11, 12

Tapa (13 puzzles, 380 points total)

Shade in some of the squares of the grid. All shaded squares must be connected - two shaded squares that touch only at a point are not considered connected. No cells with numbers can be shaded. No 2 by 2 square of cells can be fully shaded. Each cell with numbers gives the sizes of the consecutive blocks of shaded cells in the eight cells surrounding that clue, with at least one unshaded cell appearing in between any two consecutive blocks.

Tapa 1 (10 points)

		5			
2			2 2 1		
1 1					2 2
	5 1			2
			3		

Tapa 2 (10 points)

		2 2			
	5		1 1 1 1		
	3 1 1			6	
			5		

Tapa 3 (10 points)

Tapa 4 (10 points)

Tapa 5 (10 points)

A 7×7 grid with the following clues:

- Row 1, column 5: $1\,1\,1$
- Row 2, column 3: $4\,1$
- Row 4, column 2: $4\,1$
- Row 4, column 6: $5\,1$
- Row 6, column 5: $4\,1$
- Row 7, column 3: 3

Tapa 6 (10 points)

A 7×7 grid with the following clues:

- Row 2, column 1: $1\,1$
- Row 2, column 5: $2\,2$
- Row 2, column 6: $2\,1\,1$
- Row 4, column 4: $4\,1$
- Row 6, column 2: $3\,3$
- Row 6, column 3: $4\,2$
- Row 6, column 7: 2

Tapa 7 (30 points)

A 9×9 grid with the following clues:

Row 2: $^1_1$ (col 2), 0 (col 5), 1 (col 8)

Row 4: $^3_2$ (col 2), $^2_1{}^1$ (col 5), 3 (col 8)

Row 7: 8 (col 2), 7 (col 5), 6 (col 8)

Tapa 8 (30 points)

A 9×9 grid with the following clues:

Row 1: 4 (col 4), 3 (col 7)

Row 2: 2 (col 1)

Row 3: $^3_3$ (col 3), $^3_3$ (col 6), 4 (col 9)

Row 5: $^3_3$ (col 2), $^5_1$ (col 8)

Row 7: 2 (col 1), $^3_3$ (col 4), $^3_3$ (col 7)

Row 8: 3 (col 9)

Row 9: 1 (col 2), $^1_1$ (col 5)

Tapa 9 (30 points)

	2 2 1				2 2 1			
		2 2 1						
	4 1				2 2 1			
				2 2 1				
	4 1						4	

Tapa 10 (30 points)

2			3			2 2 1		
			3					
			3					
	3 1						4 1	
					2 1			
					2 1			
		3 2			2 1			1

Tapa Mu (60 points)

Tapa Alpha (60 points)

Tapa Theta (80 points)
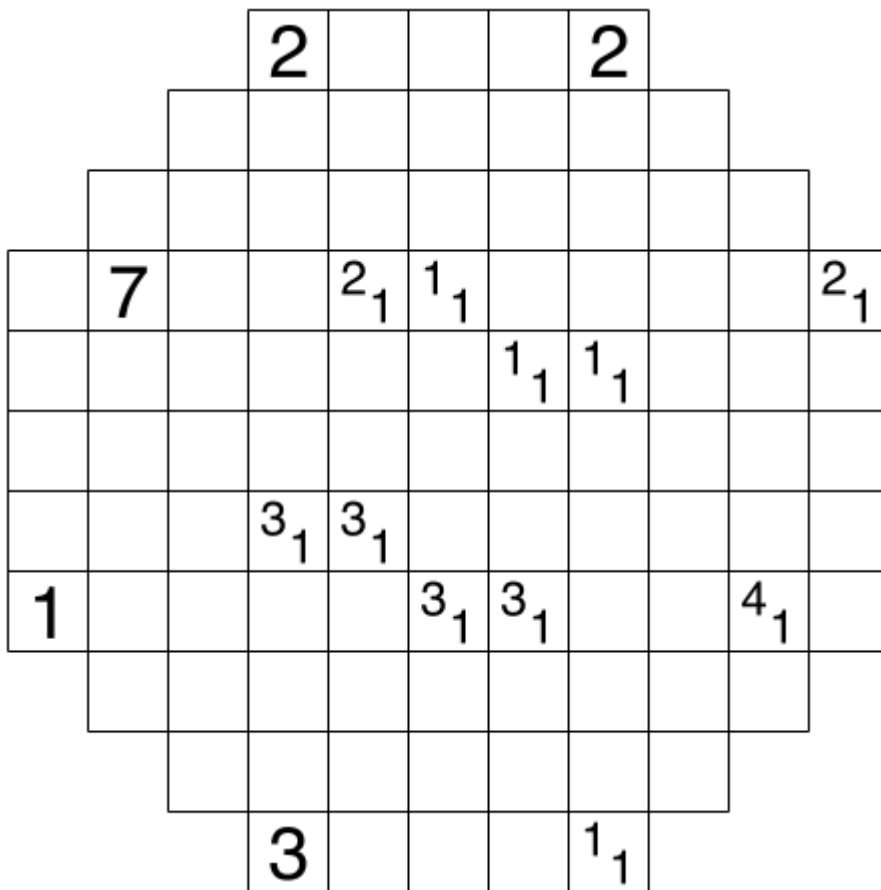
Twins and Triplets (13 puzzles, 450 points total)

Fill in each blank square with a number so that each number in the bank to the right is used. Some numbers are already filled in. If two squares share a side, then the numbers in those cells must be equal in all but one digit position. For example, 211 and 231 may be in adjacent cells, but 112 and 121 may not be in adjacent cells.

Twins and Triplets 1 (10 points)

Twins and Triplets 2 (10 points)

Twins and Triplets 3 (10 points)
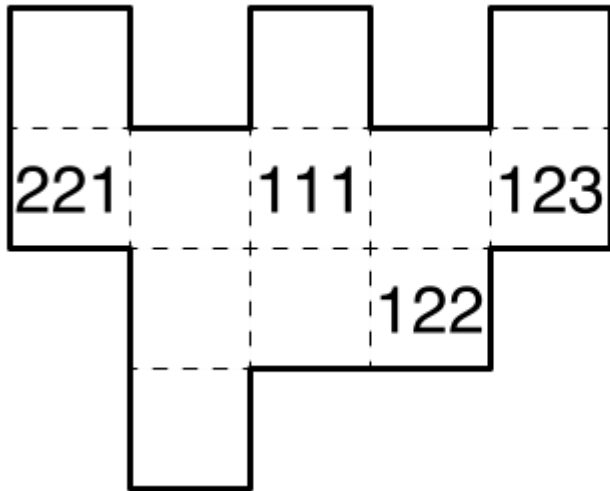
221	111	123
		122

~~111~~ 121
112 ~~122~~
113 ~~123~~

211 ~~221~~
212 222
213 223

Twins and Triplets 4 (10 points)
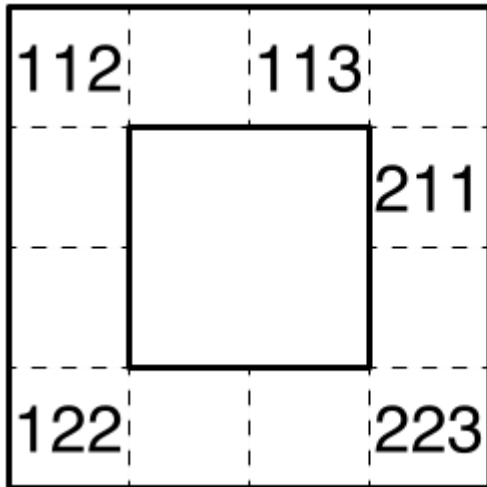
112	113	
		211
122		223

111 121
~~112~~ ~~122~~
~~113~~ 123

~~211~~ 221
212 222
213 ~~223~~

Twins and Triplets 5 (10 points)

213   112

212   222

111 121
~~112~~ 122
113 123

211 221
~~212~~ ~~222~~
~~213~~ 223

Twins and Triplets 6 (10 points)

112

223

111

213

~~111~~ 121
~~112~~ 122
113 123

211 221
212 222
~~213~~ ~~223~~

Twins and Triplets 7 (40 points)

```
      ┌────┐   ┌────┐   ┌────┐
      │    │   │111 │   │    │
 ┌────┼────┼───┼────┼───┼────┼────┐
 │232 │    │   │    │   │223 │
 └────┼────┼───┼████┼───┼────┼────┘
 ┌────┼────┼───┼████┼───┼────┼────┐
 │112 │    │   │    │   │133 │
 └────┼────┼───┼────┼───┼────┼────┘
      │    │   │221 │   │    │
      └────┘   └────┘   └────┘
```
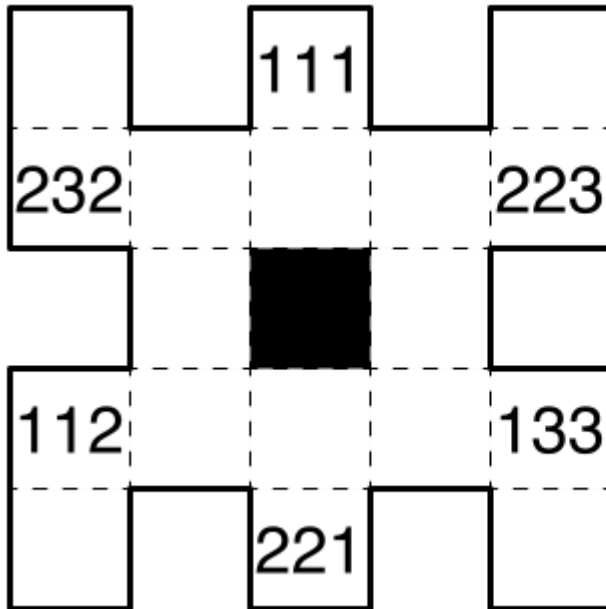
~~111~~	121	131
~~112~~	122	132
113	123	~~133~~

211	~~221~~	231
212	222	~~232~~
213	~~223~~	233

Twins and Triplets 8 (40 points)

```
 ┌────────┐           ┌────────┐
 │123     │           │    132 │
 │        │           │        │
 ├────────┼───────────┼────────┤
 │221     │   223     │133     │
 └────────┼───────────┼────────┘
          │           │
          └───────────┘
```
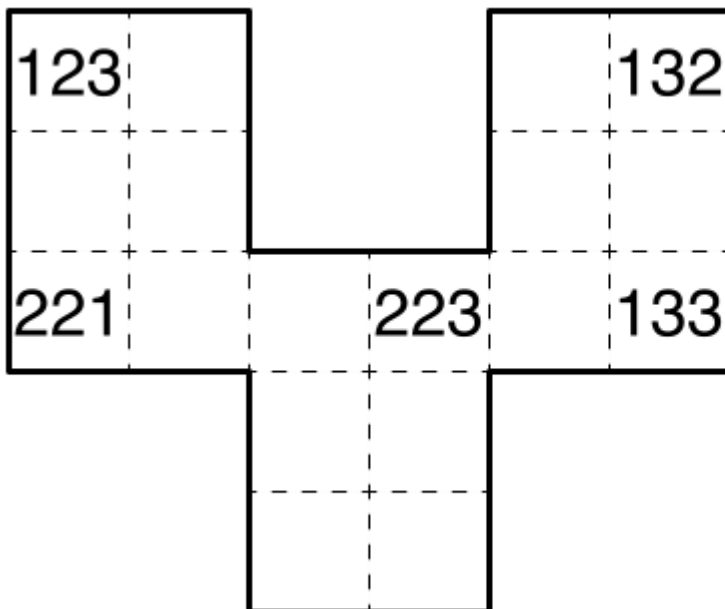
111	121	131
112	122	~~132~~
113	~~123~~	~~133~~

211	~~221~~	231
212	222	232
213	~~223~~	233

Twins and Triplets 9 (40 points)

132	123
212	■	131
223	232
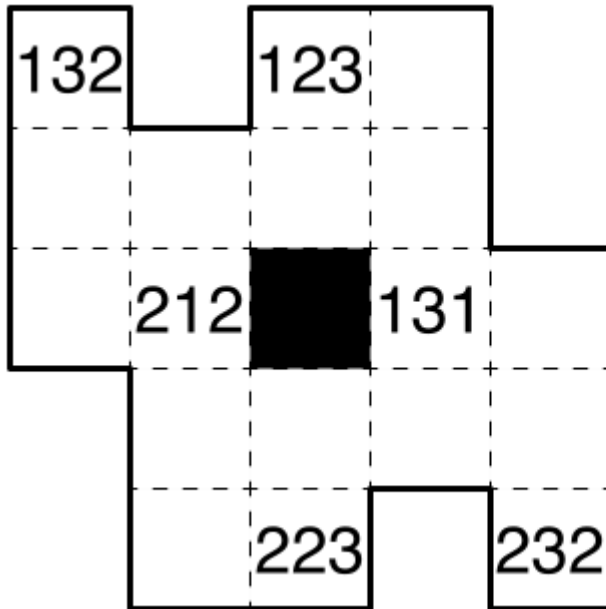
111 121 ~~131~~
112 122 ~~132~~
113 ~~123~~ 133

211 221 231
~~212~~ 222 ~~232~~
213 ~~223~~ 233

Twins and Triplets 10 (40 points)

| 212 |
| 132 |
| 121 |
| 222 |
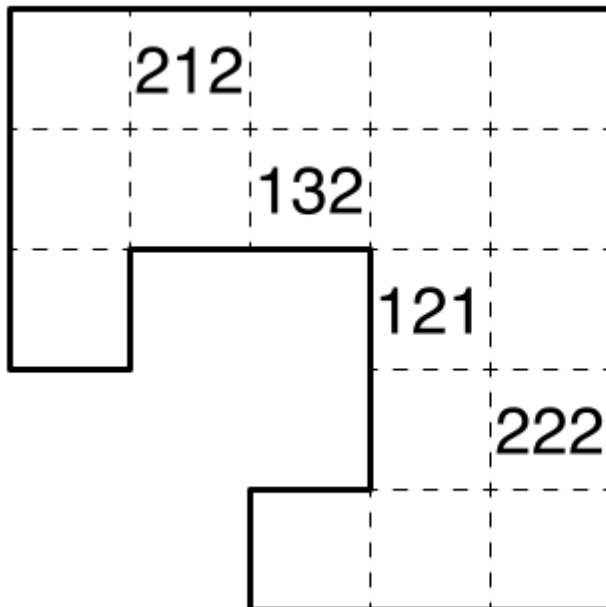
111 ~~121~~ 131
112 122 ~~132~~
113 123 133

211 221 231
~~212~~ ~~222~~ 232
213 223 233

Twins and Triplets Mu (70 points)
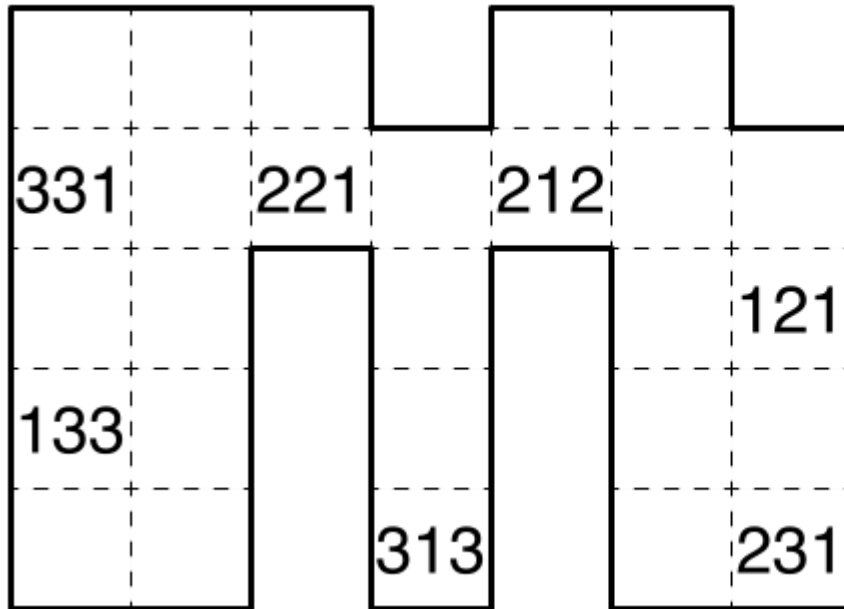
111 ~~121~~ 131
112 122 132
113 123 ~~133~~

211 ~~221~~ ~~231~~
~~212~~ 222 232
213 223 233

311 321 ~~331~~
312 322 332
~~313~~ 323 333

Twins and Triplets Alpha (70 points)
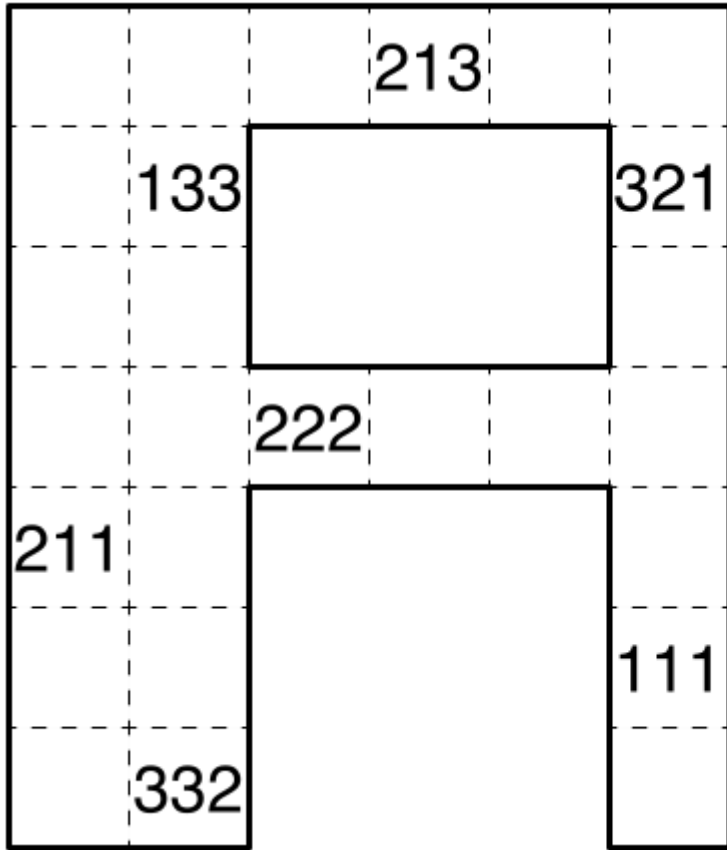
213

133   321

222

211

111

332

111 121 131
112 122 132
113 123 133

211 221 231
212 222 232
213 223 233

311 321 331
312 322 332
313 323 333

Twins and Triplets Theta (90 points)
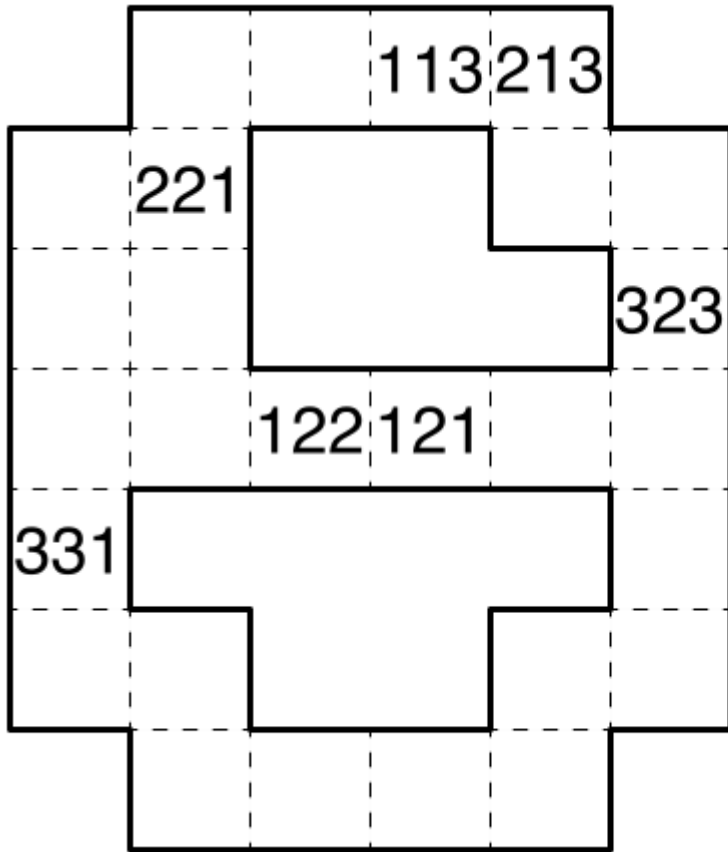
111	~~121~~	131
112	~~122~~	132
~~113~~	123	133

211	~~221~~	231
212	222	232
~~213~~	223	233

311	321	~~331~~
312	322	332
313	~~323~~	333

Kakuro (13 puzzles, 590 points total)

Fill in each white square with a nonzero digit. In a consecutive horizontal or vertical block of white cells, no digit can repeat, and the sum of all digits in the block must equal the small white-on-black number to the left (for horizontal blocks, with sum given above a slash) or above (vertical blocks, with sum given below a slash). All such blocks of white cells will have at least two cells, and every block will have its sum given.

Kakuro 1 (20 points)
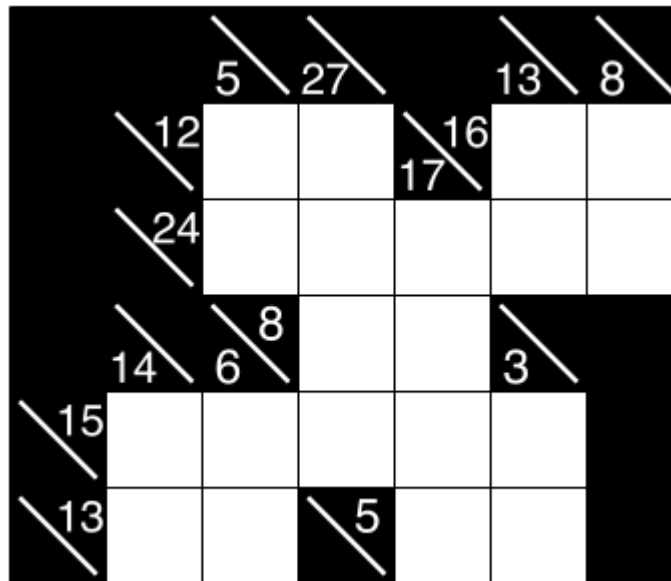
Kakuro 2 (20 points)

Kakuro 3 (20 points)

Kakuro 4 (20 points)

Kakuro 5 (20 points)

Kakuro 6 (20 points)

Kakuro 7 (50 points)

Kakuro 8 (50 points)

Kakuro 9 (50 points)

Kakuro 10 (50 points)

Kakuro Mu (80 points)

Kakuro Alpha (80 points)

Kakuro Theta (110 points)