Name:	Country:	Points

13th **24** Hours Puzzle Championship

9-11th November 2012
Hotel Amadeus
Hungary

PUZZLES BY:
TAWAN SUNATHVANICHKUL

1.	Twins	50 points	(10x5)
2.	Outside Sudoku	45 points	
3.	Digital Mess	35 points	
4.	Minesweepers	20 points	
5.	Magischen Minesweepers	45 points	
6.	Tapa Line	105 points	(50+55)
7.	Pointing Nine Sudoku	50 points	
8.	Anti-Knight Scrabble	80 points	
9.	Anti-Knight Star Battle	40 points	
10.	Araf	100 points	(35+65)
11.	Spy Battleships	45 points	
12.	Ripple Effect	80 points	(40+40)
13.	Tight Fit Sudoku	45 points	
14.	Haido Skyscrapers	120 points	(20+30+70)
15.	False Kakuro	65 points	
16.	Voyage to 2012 London	75 points	(10x7)+5

Total: 1000 points

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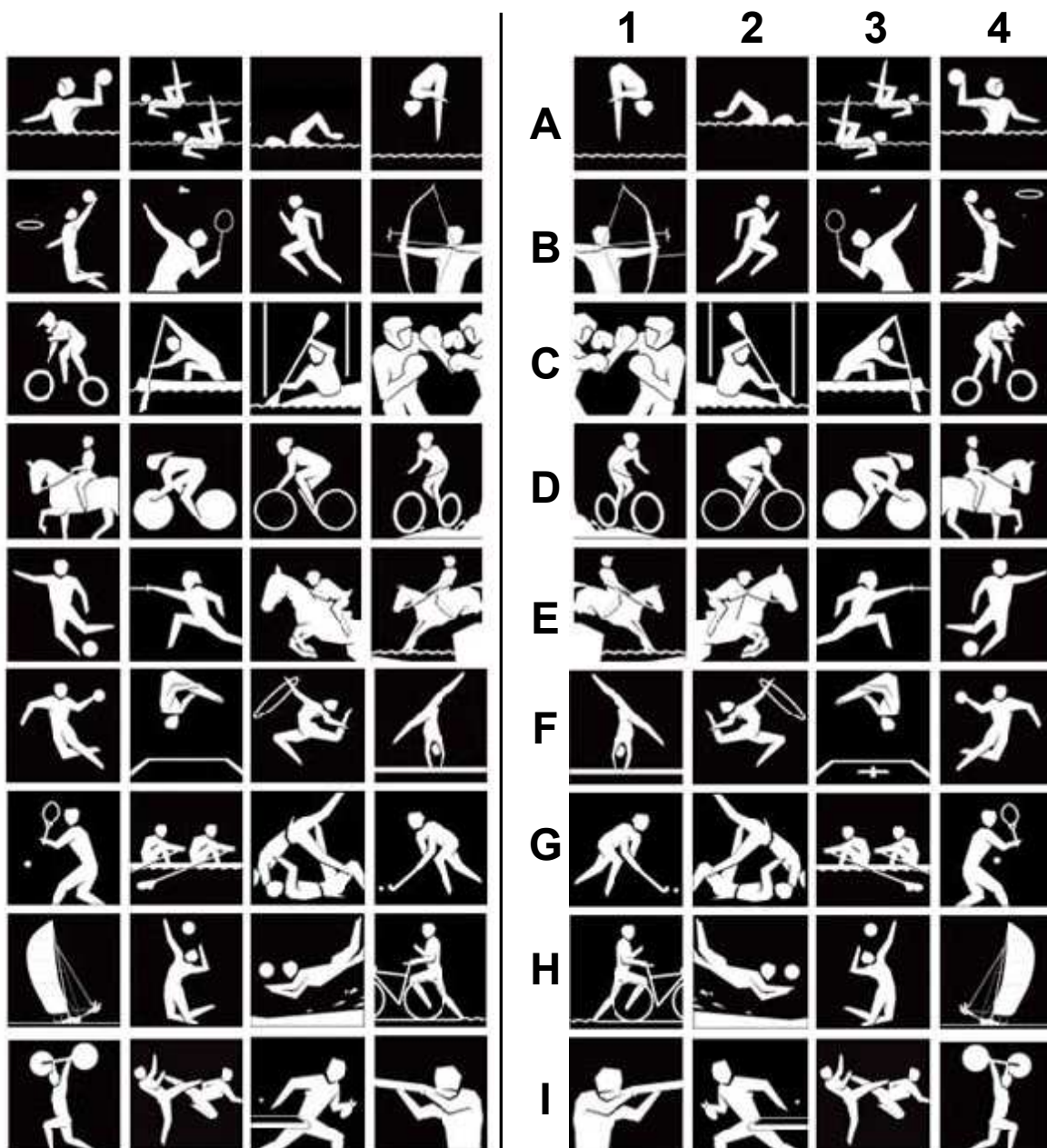**Hungary**

Puzzles By:
**TAWAN
SUNATHVANICHKUL**

1. TWINS   (10x5) POINTS

Find the 5 pictures that had been reflected incorrectly. Differences are reasonably visible and will not be due to pixelation. 10 points for each difference found.

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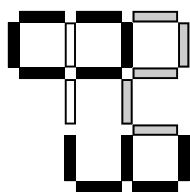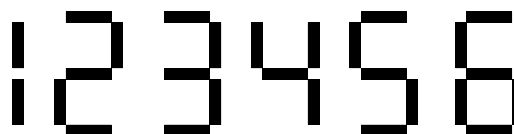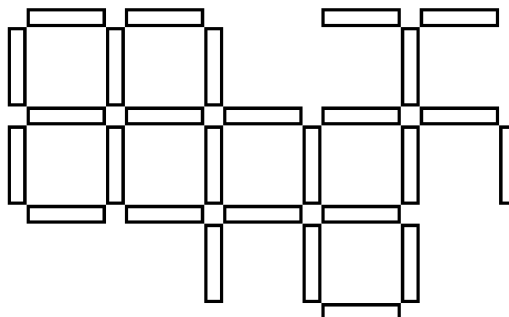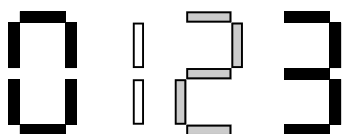**TAWAN
SUNATHVANICHKUL**

2. OUTSIDE SUDOKU   45 POINTS

Fill in the grid with numbers from 1-9 so that no digit repeats in any row, column or 3x3 bolded region. Numbers that appear outside the grid must be in one of the first 3 cells seen from that direction.

```
          2   5   4   2           1

          9   8   7   3   6       7   3

  1   9 ┌───────────┬───────────┬───────────┐ 4   6
        │           │           │           │
      7 │           │           │           │ 2   5
        │           │           │           │
      3 │           │           │           │
        ├───────────┼───────────┼───────────┤
      4 │           │           │           │ 8
        │           │           │           │
      6 │           │           │           │ 3
        │           │           │           │
      3 │           │           │           │ 1
        ├───────────┼───────────┼───────────┤
        │           │           │           │ 3
        │           │           │           │
  3   7 │           │           │           │ 9
        │           │           │           │
  2   6 │           │           │           │ 1   5
        └───────────┴───────────┴───────────┘
          8   4       5   8   7   3   5

          9           9   8   4   6
```

3. DIGITAL MESS   35 POINTS

Locate several digital numbers in the given pile. Each fragment can only be used once, numbers may be rotated but not reflected.

EXAMPLE

Puzzles By:
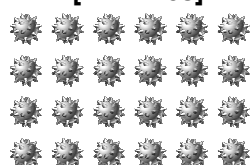**TAWAN
SUNATHVANICHKUL**

4. MINESWEEPERS   20 POINTS

Locate a number of mines in the grid. Numbers in the grid represent the amount of mines surrounding that square. Mines cannot occupy cells with numbers in them.

EXAMPLE

🌟	1		1	
		1	🌟	
0				2
		1		🌟
🌟	2	🌟	3	🌟

[24 mines]

🌟 🌟 🌟 🌟 🌟
🌟 🌟 🌟 🌟 🌟
🌟 🌟 🌟 🌟 🌟
🌟 🌟 🌟 🌟 🌟

			1			0		
	2	4						2
			1					
3		5			3	3		1
	2	3		3				
				1		1	1	
1		2	2			3		2
				4				
2						2	4	
		0			2			

5. MAGISCHEN MINESWEEPERS   45 POINTS

Locate exactly three mines in each row and column. The numbers in the grid represent the number of mines surrounding that cell. Mines are labeled; A, B and C. All types of mine appear once in each row and column. (2 types of mine in the example).

B	A		2	2
			B	A
		B	A	
A	B			
2	3	A		B

EXAMPLE

		2	A					0
		B		1	2			1
3							1	
	B							1
3			1	2		A		
1					C	3		

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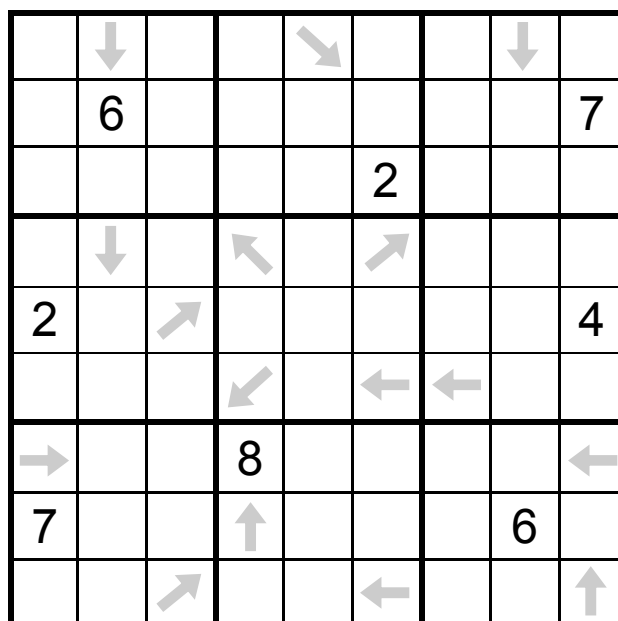SUNATHVANICHKUL**

6. TAPA LINE   50 + 55 POINTS

Shade in a continuous wall of black squares. Numbers inside the clue cells represent the length of the wall segment/s surrounding that square. There cannot be a 2x2 grid of shaded squares. Additionally, there cannot be a straight line, horizontal or vertical, of more than 3 shaded cells.
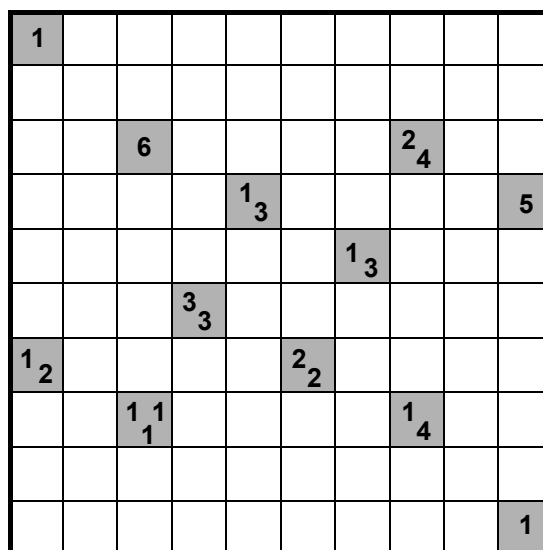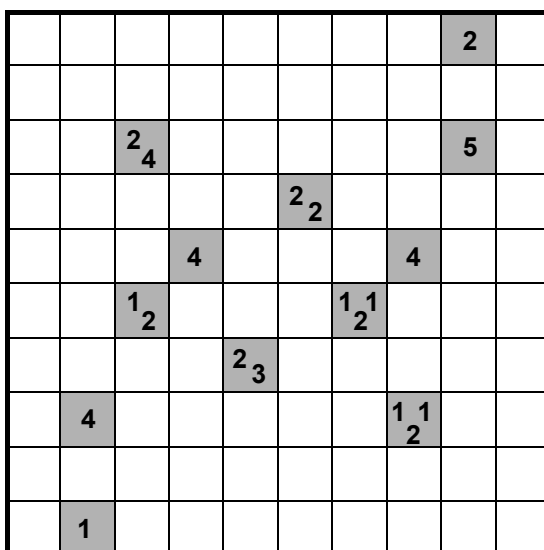
7. POINTING NINE SUDOKU   50 POINTS

Fill in the grid with numbers from 1-9 so that no digit repeats in any row, column or 3x3 bolded region. Numbers on an arrow indicate the length from that arrow to a 9 in that direction.

3	6	4	1	5	2
5	1	2	3	4	6
4	2	5	6	3	1
1	3	6	5	2	4
6	4	3	2	1	5
2	5	1	4	6	3

EXAMPLE

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8. ANTI-KNIGHT SCRABBLE   80 POINTS

Fill in the grid with all the listed chess players. Words can only be read from left-right and top-bottom. No unlisted words may be formed. Each knight cannot attack identical letters. Enter only the capitalized surnames. All words must interconnect.

EXAMPLE

ANAND [Viswanathan]
KASPAROV [Garry]
LEKO [Peter]
POLGAR [Judit]
TAL [Mikhail]
TOPALOV [Veselin]

			K		P		
T	O	P	A	L	O	V	
A			S		L		
L	♞		P		G		
			A	N	A	N	D
			R		R		
L	E	K	O				
			V				

ADAMS [Michael]
ARONIAN [Levon]
CARLSEN [Magnus]
CARUANA [Fabiano]
GASHIMOV [Vugar]
GELFAND [Boris]
DING [Liren]
GIRI [Anish]
KAMSKY [Gata]
KARJAKIN [Sergey]

KRAMNIK [Vladimir]
MCSHANE [Luke]
MOROZEVICH [Alexander]
NAKAMURA [Hikaru]
PONOMARIOV [Ruslan]
RADJABOV [Teimour]
SHIROV [Alexei]
VOLOKITIN [Andrei]
WANG [Hao]
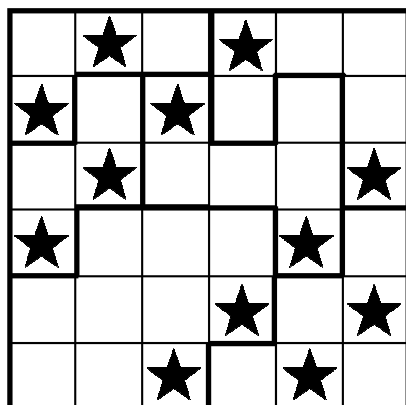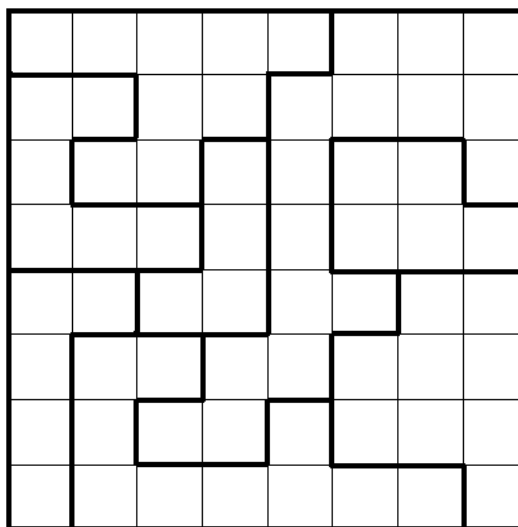YIFAN [Hou]

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9. ANTI-KNIGHT STAR BATTLE   40 POINTS

Locate 2 stars in each row, column and outlined region. Stars may not be a knight's move away from each other.

EXAMPLE

10. ARAF   35 + 65 POINTS

Divide the grid into segments containing two numbers each. The size of the segment must be a number strictly between the two numbers of that segment.

		24	24	
2	2			
			2	8
4	5			
			5	6
	4	5		

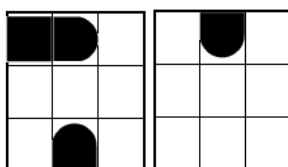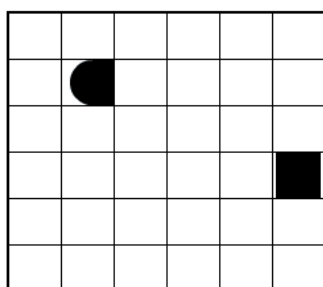|				11			5	3
10					4			4
	9					10		
	9				3		4	
8		10		24				2
9			3		6			7
	6		4				9	
	3				24			
8		1						24
9	6		2					

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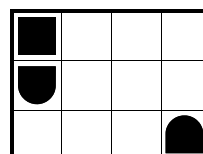**Hungary**

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11. SPY BATTLESHIPS   45 POINTS

Locate the fleet of battleships in the grid. No ships touch each other, not even diagonally. All you have is 4 satellite photos of the completed grid. Photos can be rotated but not reflected. Photos do not overlap. You don't have to show where each photos are. Ships may not occupy cells with waves.

EXAMPLE

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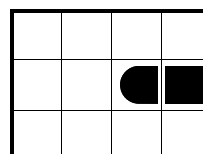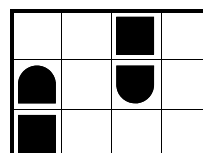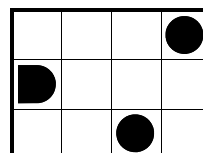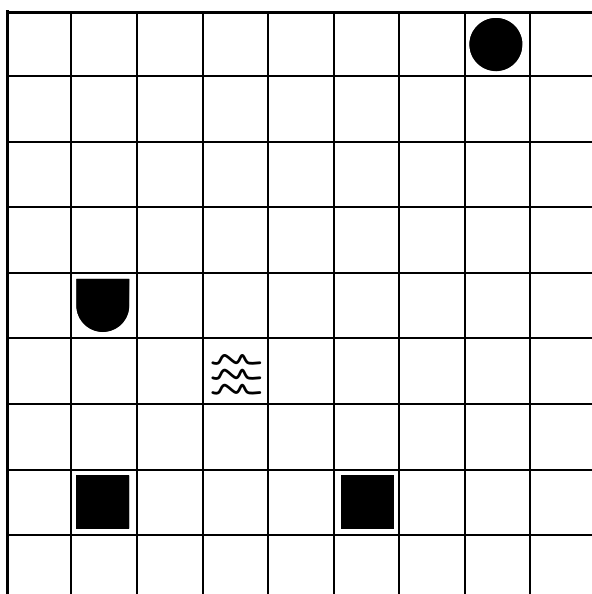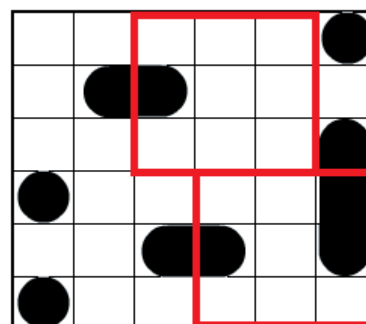**Hungary**

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12. RIPPLE EFFECT   40 + 40 POINTS

Place numbers from 1-n in each outlined regions where n is the number of cells in that region. Any number n has to be at least n cell(s) away from each other. For example; a 3 has to be at least 3 cells away from other 3s. Gaps are considered a cell.
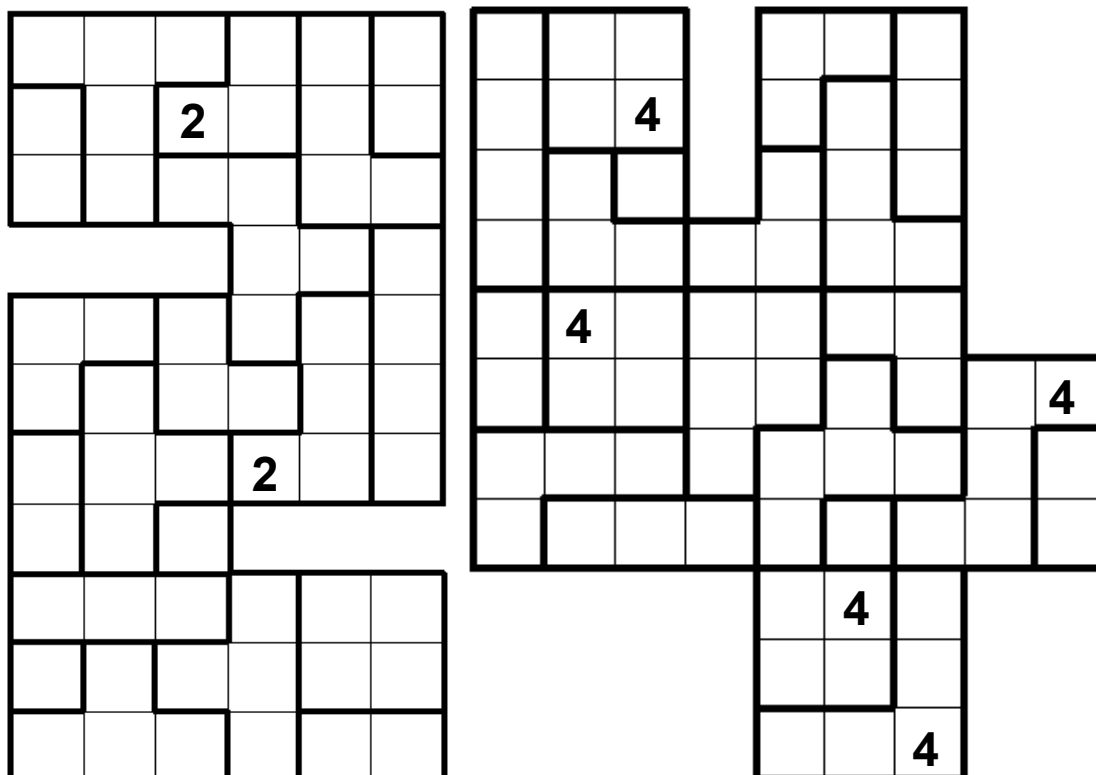
13. TIGHT FIT SUDOKU   45 POINTS

Fill in the grid with numbers from 1-9 so that no digit repeats in any row, column or 3x2 bolded region. Larger numbers are filled below the lesser number for cells with two numbers.

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14. HAIDO SKYSCRAPERS　　　　　　　20 + 30 + 70 POINTS

Enter numbers 1-n so that no number repeats in any row and column. Each number represents the height of the building. Numbers outside the grid indicate the height of a building that can be seen from that direction.
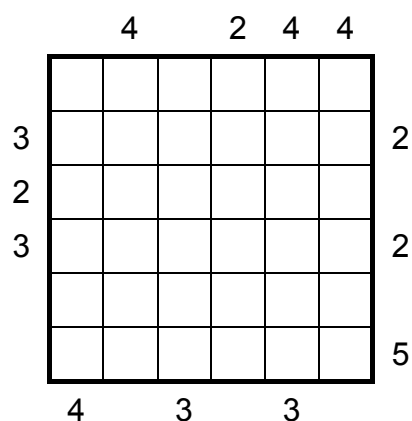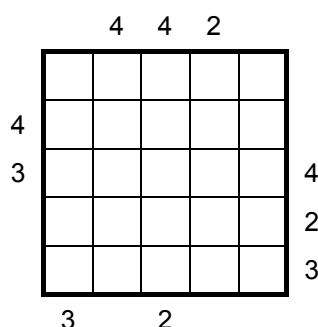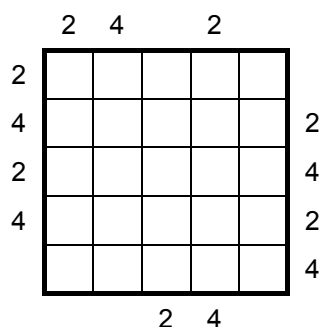
15. FALSE KAKURO　　　　　　　　　　　65 POINTS

Standard Kakuro rules apply; fill in digits 1-9 so that the sum of each row and column equals to the corresponding value. Numbers cannot repeat in a single sum. In this variant, the sum given is off by 1. So 20 could mean 19 or 21.
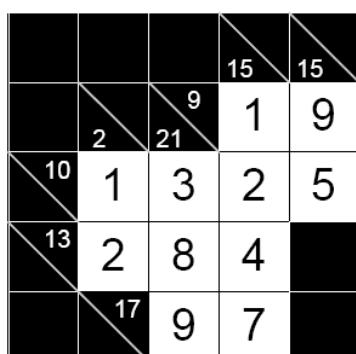
EXAMPLE
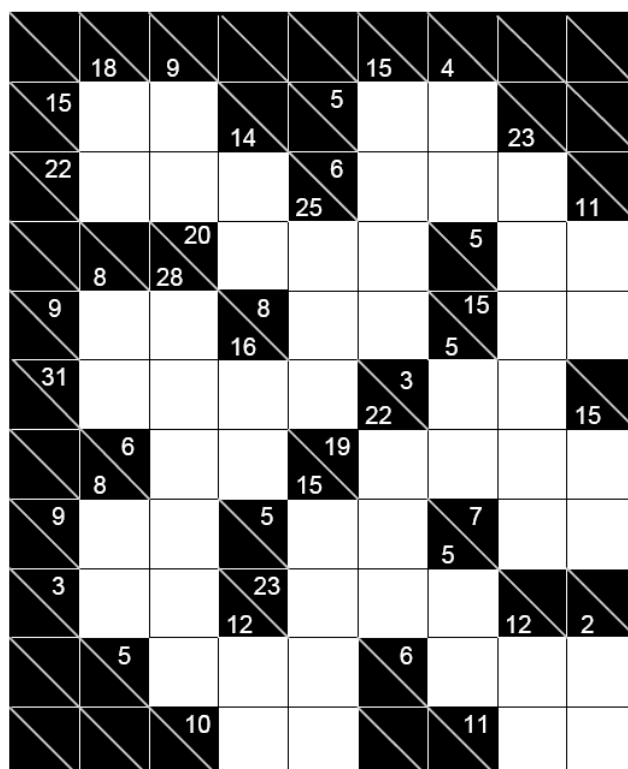
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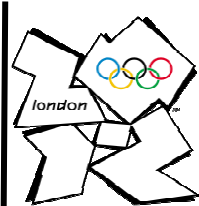
Puzzles By:
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SUNATHVANICHKUL**

16. VOYAGE TO 2012 LONDON   (10x7) + 5 POINTS

Find the listed words, they can go in any straight direction. 10 points for every 5 words found. There are 37 words, 5 bonus points for the last two words.

```
            W                                       L
      B  N  M                                  L  A
      B  C  A  O  C                 C       B  B  L  R
   R  A  A  I  D  Y  G           T  Y  C  S  T  A  A  C
Y  A  L  E  R  E  M  N  G        M  A  R  A  T  H  O  N  B  H
   K  L  W  T  R  C  I  N  G     G  E  G  O  E  L  H  T  U  D  E
      W  S  N  Y  C  N  I  N     N  K  N  N  E  O  O  R  L  N  R
         E  P  C  N  Y  T     I  I  W  I  I  P  N  D  N  A  W  L  A  Y
         U  E  L  E  J     O  B  L  O  V  O  L  L  E  Y  B  A  L  L  H
      B  Q  N  T  F        N  C  N  I  B  E  O  L  C  C  L  A  K
      B  A  E  T  N           H  D  D  S  C  M  P  Y  L  K  B
      E  L  L  A  I  D  U  J  O     O  J  U  H  U  C  M     L
   W  O  R  H  T  R  E  M  M  A  H     C  M  A  J     A
W  A  L  S  K  H  P  R  A  C  E  V        K  S     C  R  R
R  A  C  E  H  L  S  W  A  L  K  J  E        E  K  D  C  O  T
         L  O  E                 L  F  P     Y  G  W  I  D  W  S
      J  U  M  S  N  O           M  O  I  S  M     A  N  E  S  C  I  W
      U  P  J  L  N  T  N     P  O  D  U  N  I     C  I  I  C  A  N  T
      O  D  U  M  A  N  I  G     T  U  L  J  M     N  A  I  T  X  G  U  R  G  N
         O  P  C  L  G  N  B     J  D  O        T  N  S  N  N  O  I  S  I
         M  B  N  O  A  G           P  H  A  A  E  I  G  A  B  L
      B  U  I  A  L  M           A  H  L  R  N  T  L  T  T  L
      L  J  B  L  T        E  Q  U  O  T  M  E  T  H  H
   K  E  H  T  K  E        T  R  I  N  C  Y  C  S  T  L
   W  E  I  G  H  T  L  I  F  T  I  N  G  A  E  I  O  A  O  J
   G  N  I  L  I  A  S           A  T  H  R  I  N  N  G  W  N  M  H
   T  E  K  S  H  A  B           S  W  I  M  M  I  N  G  R  O  W  T
S  H  O  T  P  U  T              N  G  S  C  I  T  E  L  H  T  A
```

ARCHERY	**FOOTBALL**	**MODERN PENTATHLON**	**TENNIS**
ATHLETICS	**GYMNASTICS**	**RELAY**	**TRAMPOLINE**
BADMINTON	**HAMMER THROW**	**ROWING**	**TRIATHLON**
BOXING	**HANDBALL**	**SAILING**	**VOLLEYBALL**
CANOE SPRINT	**HIGH JUMP**	**SHOOTING**	**WATER POLO**
DECATHLON	**HOCKEY**	**SHOT PUT**	**WEIGHTLIFTING**
DISCUS	**HURDLES**	**SLALOM**	**WRESTLING**
DIVING	**JAVELIN**	**STEEPLECHASE**	
EQUESTRIAN	**JUDO**	**SWIMMING**	
FENCING	**MARATHON**	**TAEKWONDO**	