



WPF
SUDOKU/PUZZLE
GRAND PRIX
2014

WPF PUZZLE GP 2014 INSTRUCTION **BOOKLET**

ROUND **6**

Puzzle authors:

Turkey

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Hatice Esra Aydemir, Murat Can Tonta

Organised by



WORLD PUZZLE FEDERATION



Note: The total raw points adds up to much less than 600 points. We expect the puzzles in this round to be a bit faster to solve than that in previous rounds. The time bonus is still 10 points per minute remaining.

Submission Page: <http://gp.worldpuzzle.org/content/puzzle-gp>

Points:

1. HUNDRED	30 Points
2. FOUR WINDS	28 Points
3. CRISSCROSS	13 Points
4. CAVE	17 Points
5. PENTOMINOUS	28 Points
6. DOUBLE MINESWEEPER	69 Points
7. BLACKOUT MATH	7+16 Points
8. FOUR SNAILS	8 Points
9. STATUE PARK	7 Points
10. PLACE BY PRODUCT	51 Points
11. EASY AS ABC	38 Points
12. THERMO-SKYSCRAPERS	47 Points
13. FILLOMINO	39 Points
14. TAPA	38 Points
15. CRYSTAL MINE	12 Points

TOTAL	448 Points
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1. Hundred (30 Points) [Salih Alan]

A grid of 9 cells is given, each of which contains a given digit. Place at most one (additional) digit in each cell (either before or after the given digit), so that the sum of the three numbers in each row and column is 100. A two-digit number may not start with a zero (although a single-digit number may).

Answer: Enter all the digits you placed. First the top row from left to right, then the middle row from left to right, then the bottom row from left to right.

Example Answer: 43950

5	8	8
3	2	9
7	9	3

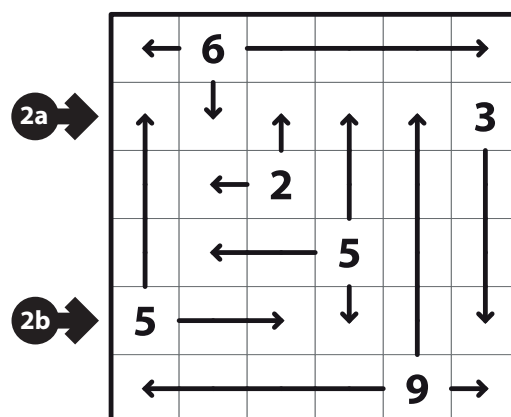
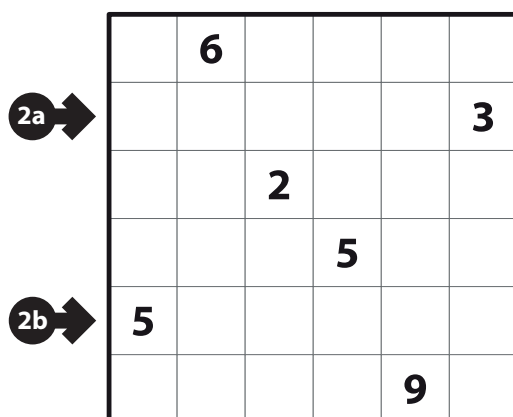
54	8	38
39	2	59
7	90	3

2. Four Winds (28 Points) [Serkan Yürekli]

Draw one or more horizontal lines from each numbered square. Lines cannot cross other numbered squares. Each number indicates how many squares are connected by its lines; the numbered squares themselves are not counted. No lines overlap or intersect each other, and each empty square is covered by exactly one line.

Answer: For each designated row, enter the number connected to each square in that row, from left to right.

Example Answer: 562593, 555593



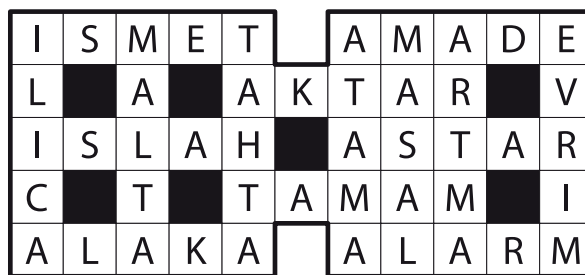
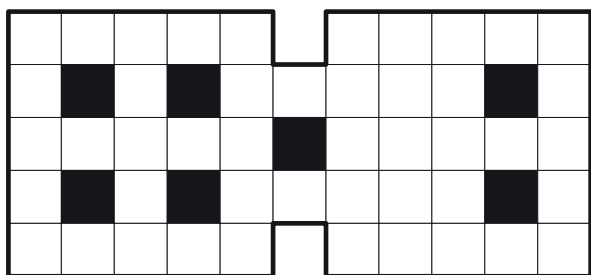


3. Crisscross (13 Points) [Serkan Yürekli]

Put a letter into each empty square so that each consecutive group of horizontal or vertical squares contains one of the words in the word list, reading across or down. Each word in the word list is used at most once, and two words will not be used at all.

Answer: Enter the two unused words in alphabetical order.

Example Answer: ASTIM, KATAR



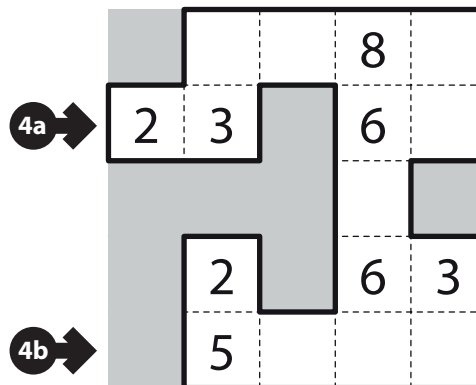
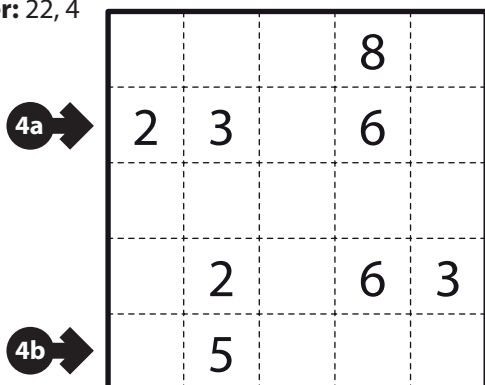
AKTAR	ASTAR	ILICA	MALTA
ALAKA	ASTIM	ISLAH	MASAL
ALARM	ATAMA	ISMET	TAHTA
AMADE	EVIRIM	KATAR	TAMAM
ARTMA			

4. Cave (17 Points) [Serkan Yürekli]

Shade some cells to leave behind a single connected group — the cave — with no enclosed, shaded cells. In other words, all shaded cells must be connected by other shaded cells to an edge of the grid. All numbered cells must be a part of the cave, with each number indicating the total count of cells connected vertically and horizontally to the numbered cell *including the cell itself*. (Both the area inside the cave and the areas outside the cave are allowed to have 2x2 sub-areas.)

Answer: For each designated row, enter the length in cells of each of the cave segments (*not the shaded cells outside the cave*) from left to right. Use only the last digit for two digit numbers; e.g., use '0' for a segment of length 10. If there are no cells belonging to the cave in the row, enter a single digit '0'.

Example Answer: 22, 4



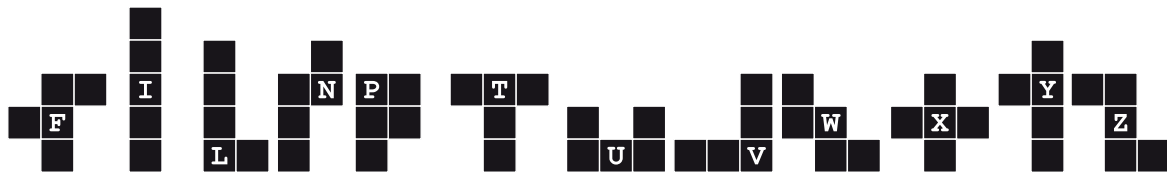
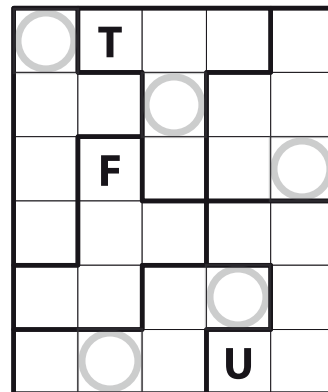
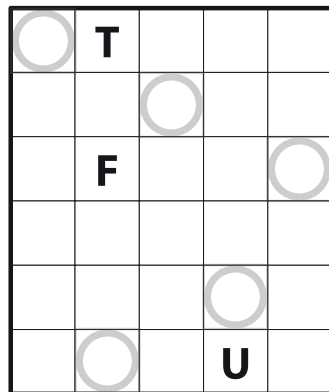


5. Pentominous (28 Points) [Serkan Yürekli]

Divide the grid into pentominoes so that same-shaped pentominoes cannot share an edge. Each pentomino can contain at most one letter, representing the shape of the pentomino. Pentominoes can be rotated and/or reflected (but reflections and rotations of the same pentomino cannot touch each other).

Answer: Enter the letter associated with the pentomino each circle is in, reading the circles from left to right. (Ignore which row the circles are in.)

Example Answer: YNTNP

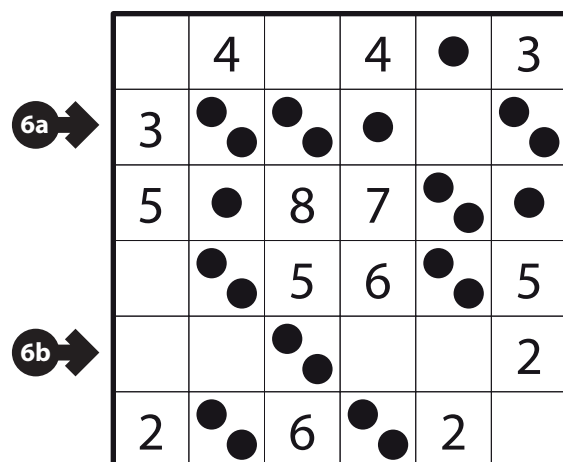
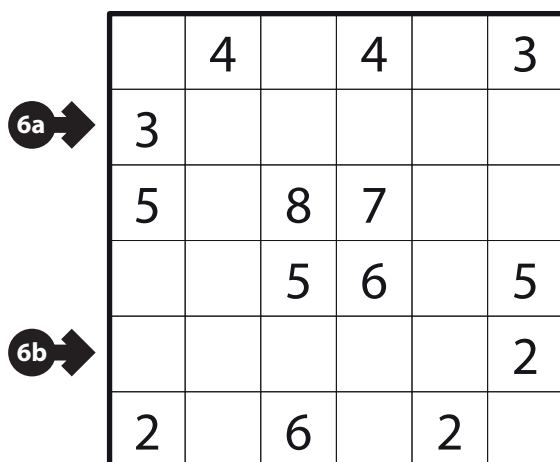


6. Double Minesweeper (69 Points) [Hatice Esra Aydemir]

Place either 0, 1, or 2 mines into each blank cell so that each number represents the total count of mines in all neighboring cells, including diagonally adjacent cells.

Answer: For each cell in the marked rows, enter the number of mines (0, 1, or 2) for each cell. Enter 0 if the cell has a number in it.

Example Answer: 022102,002000



7. Blackout Math (7+16 Points) [Serkan Yürekli]

Black out 2 of the squares so that the remaining equation is true. The standard order of operations is used: multiplication and division are done before addition and subtraction. Numbers with more than one digit cannot start with 0.

Answer: Enter the letters of the black cells in alphabetical order.

Example Answer: EH

A	B	C	D	E	F	G	H	I
1	9	+	8	4	=	2	x	7

A	B	C	D	E	F	G	H	I
1	9	+	8		=	2		7

8. Four Snails (8 Points) [Serkan Yürekli]

Write the names (**bold letters**) from the list along the snails, in the order from outside towards the middle. The same letter can not appear more than once within each row and column. A "-" indicates that there is no letter in the cell. Some letters are already given.

Answer: For each marked row, enter its contents. Use "X" for an empty cell.

Example Answer: YXXWXO, XEWN SX

ATHENS
MOSCOW
NEWYORK
SYDNEY

8a →			W		
		D			
8b →					
	-			-	

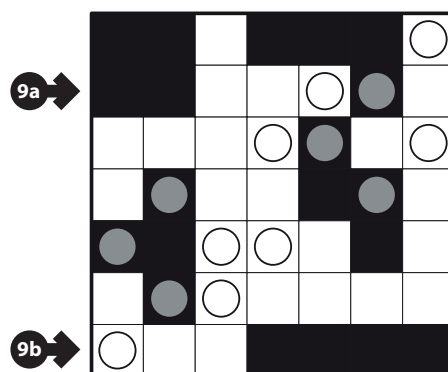
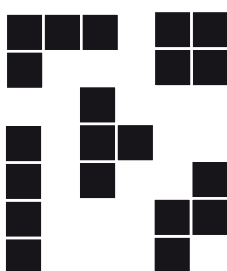
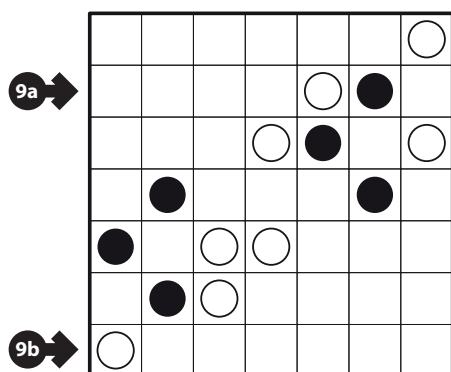
8a →	S	Y	-	-	-	M
	Y	-	-	W	-	O
	E	N	D	O	C	S
8b →	-	E	W	N	S	-
	-	K	Y	E	-	-
	N	R	O	H	T	A

9. Statue Park (7 Points) [Murat Can Tonta]

A bank of shapes is given with the grid. Place each of the shapes exactly once into the grid, with rotations and reflections allowed. No two shapes can overlap or be orthogonally adjacent, and all of the space not occupied by shapes must be connected. Black circles in the grid represent spaces that must be contained in one of the shapes, and white circles represent spaces that may not be contained in a shape.

Answer: For each designated row, enter the length in cells of each of the shaded segments from left to right.

Example Answer: 21, 4

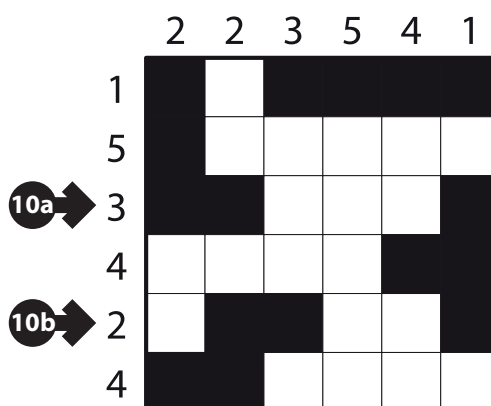
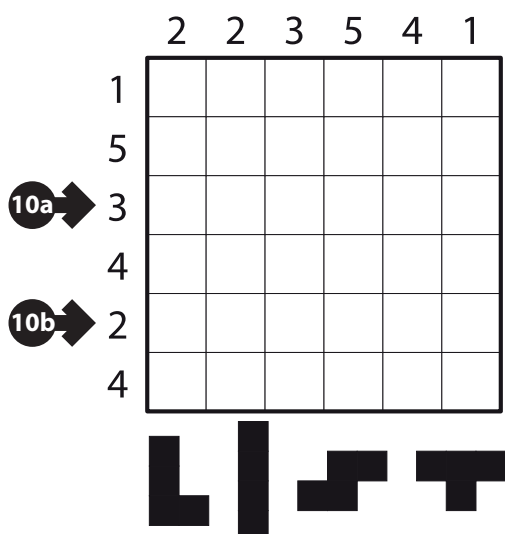


10. Place by Product (51 Points) [Murat Can Tonta]

Place each of the indicated shapes into the grid (allowing rotations and reflections) so that no two shapes touch even at a corner. Numbers outside the grid indicate the product of the lengths of all white cell groups in that row/column.

Answer: For each designated row, enter the number of cells in each group (both black and white), from left to right. Use only the last digit for two-digit numbers; e.g., use '0' for a group of size 10.

Example Answer: 231,1221



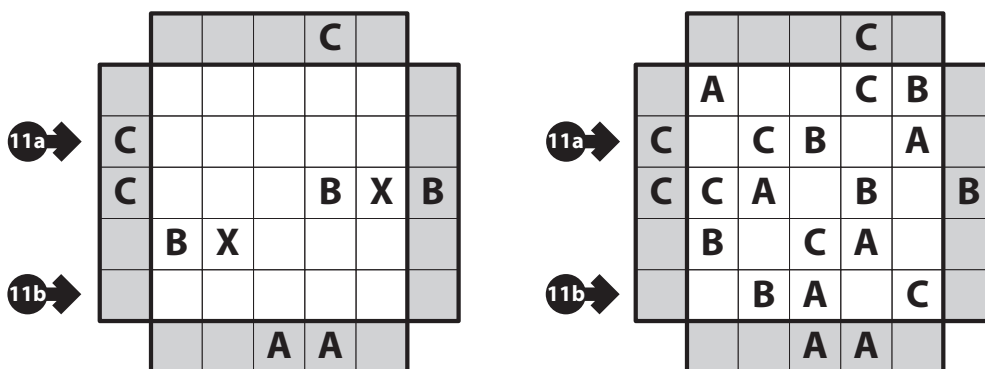


11. Easy As ABC (38 Points) [Serkan Yürekli]

Place letters T, U, R, K, E, Y (A, B, C in the example) in the cells, so that each letter appears exactly once in each row and column. Each cell must have at most one letter, but can be empty. Clues outside the grid indicate the first letter in the respective row or column, seen from that direction. Cells marked with an 'x' cannot contain a letter.

Answer: For each designated row, enter its contents. Use "X" for an empty cell.

Example Answer: XCBXA, XBAXC



12. Thermo-Skyscrapers (47 Points) [Salih Alan]

Place the digits 1 through 8 into the empty squares (one per square) so that each digit appears exactly once in each row and column.

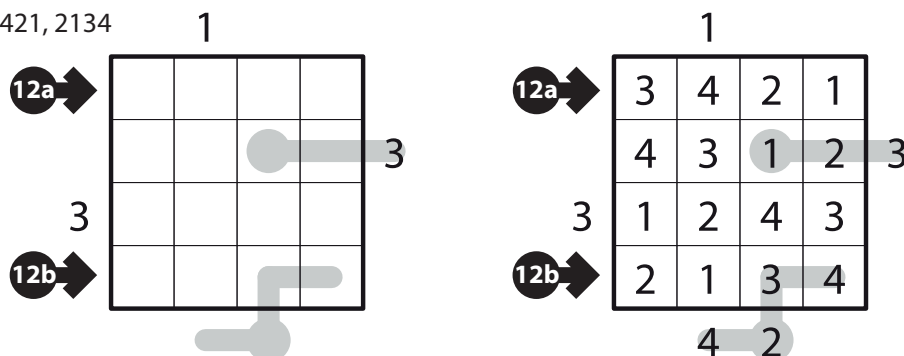
Normal Skyscrapers rules apply: each number outside the grid indicates how many buildings can be "seen" from its position at the end of the corresponding row or column, where each number inside the grid represents the height of a building. Larger numbers will block the view of smaller numbers.

The numbers in each thermometer-shaped region must be strictly increasing from the circular bulb to the end. Some thermometers may overlap—the thermometer constraint must be satisfied for each path from a bulb to the end of a path.

Additionally, a thermometer may include space outside the grid. Each such space in the thermometer must be filled with a number that simultaneously satisfies the thermometer constraint and serves as a skyscraper clue. (Note that equal numbers within a thermometer is not allowed.)

Answer: For each marked row, enter the contents inside the grid. Ignore any skyscraper clues outside the grid.

Example Answer: 3421, 2134

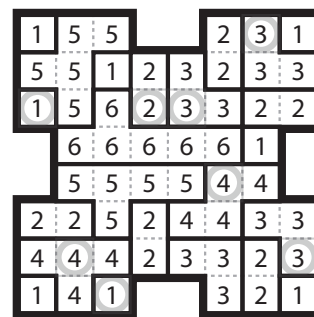
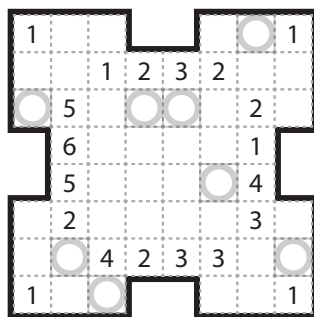


13. Fillomino (39 Points) [Hatice Esra Aydemir]

Divide the grid along the dotted lines into regions called polyominoes so that no two polyominoes with the same area share an edge. Inside some cells are numbers; each number must represent the area of the polyomino it belongs to. A polyomino may contain zero, one, or more of the given numbers. (It is possible for a “hidden” polyomino — a polyomino without any of the given numbers — to contain a value that is not present in the starting grid, such as a 6 in a puzzle with only 1-5 clues.)

Answer: Enter the size of the polyomino each circle is in, reading the circles from left to right. (Ignore which row the circles are in.) Use only the last digit for two-digit numbers; e.g., use '0' for a polyomino of size 10.

Example Answer: 14123433

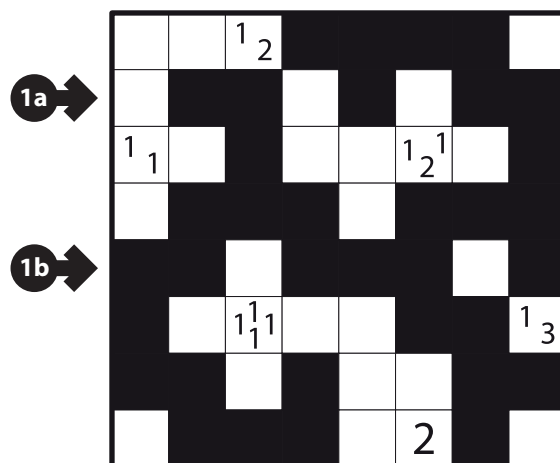
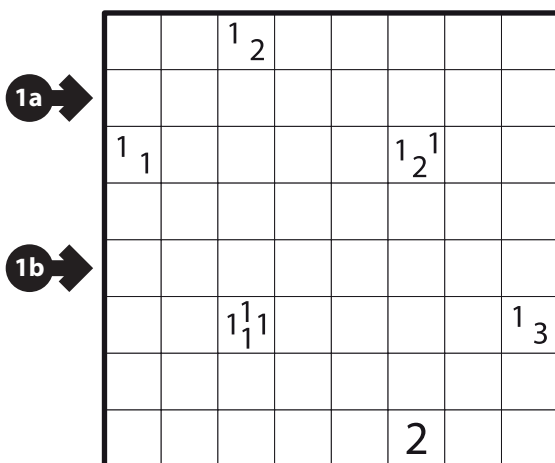


14. Tapa (38 Points) [Hatice Esra Aydemir]

Shade some empty cells black to create a single connected wall. Numbers in a cell indicate the length of consecutive shaded blocks in the neighboring cells. If there is more than one number in a cell, then there must be at least one white (unshaded) cell between the black cell groups. Cells with numbers cannot be shaded, and the shaded cells cannot form a 2×2 square anywhere in the grid.

Answer: For each designated row, enter the length in cells of each of the shaded segments from left to right. Use only the last digit for two digit numbers; e.g., use '0' for a segment of size 10. If there are no black cells in the row, enter a single digit '0'.

Example Answer: 212, 231



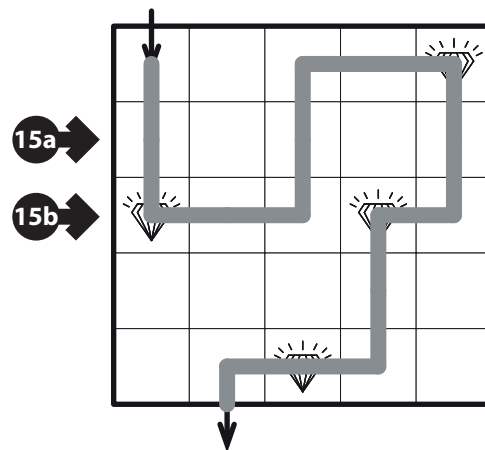
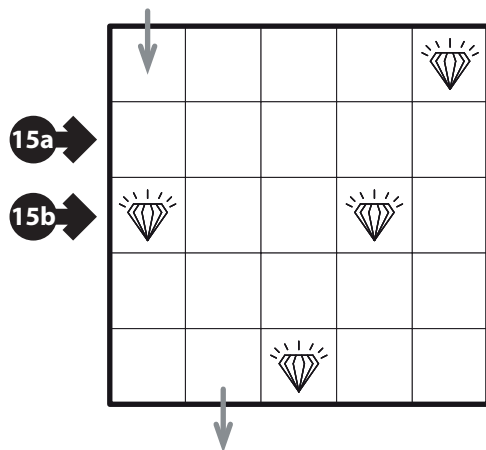


15. Crystal Mine (12 Points) [Salih Alan]

Some cells in the grid contain a crystal. Draw a path from the entrance arrow to the exit arrow, travelling orthogonally through the centers of the cells. The path must travel through every cell with a crystal, but must not visit all four cells of any 2x2 subsquare in the grid.

Answer: For each designated row, enter its contents, using ○ for a cell used by the path (including cells with crystals) and × for a cell not used by the path.

Example Answer: ○×○×○, ○○○○○





SOURCES

HUNDRED	http://forsmart.com/pdf/fpb_04.pdf
FOUR WINDS	http://www.otuzoyun.com/pqrst/pqrst02.html
CRISSCROSS	http://wpc.puzzles.com/g6/summary.htm
CAVE	http://www.gmpuzzles.com/blog/tag/cave-2/
PENTOMINOUS	http://www.gmpuzzles.com/blog/tag/pentomino/
DOUBLE MINESWEEPER	http://www.gmpuzzles.com/blog/?s=double+minesweeper
BLACKOUT MATH	http://www2.stetson.edu/~efriedma/blackout/
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TAPA	http://www.gmpuzzles.com/blog/tag/tapa-2/
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