

WPF PUZZLE GP 2017 INSTRUCTION BOOKLET

Host Country: India

Author: Prasanna Seshadri

Special Notes: Puzzles 3 through 8 are not needed for Claim Bonus.

Points:			C13.	Tic-Tac-Logic	10
C1.	Mastermind	7	C14.	Tic-Tac-Logic	13
C2.	Mastermind	15	C15.	Paint by Some Numbers	9
C3.	Find the Match	1	C16.	Paint by Some Numbers	14
C4.	Find the Match	5	C17.	Paint by Some Numbers	14
C5.	Fill in the Blank	7	C18.	Nurikabe	5
C6.	Fill in the Blank	10	C19.	Yajilin	9
C7.	Not Like the Others	2	C20.	Fillomino	13
C8.	Not Like the Others	3	C21.	Snake	12
C9.	Simple Loop	3	C22.	Shapesweeper	70
C10.	Simple Loop	4	C23.	Skyscrapers	44
C11.	Simple Loop	4			
C12.	Simple Loop	5	TOTAL:		279

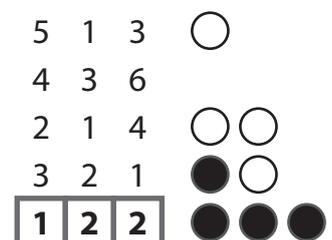
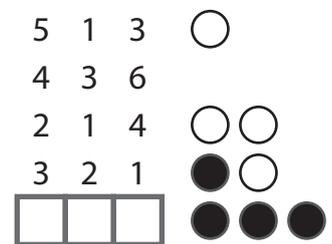
C1-2. Mastermind (7, 15 points)

Each row represents a guess at a secret code. A black dot represents a digit in the guess that is in the same position as a digit in the secret code. A white dot represents a digit in the guess that is in the secret code, but not in the same position. The dots are given in no specific order, and each digit in the secret code contributes at most one dot with black dots given priority over white dots in case of ambiguity (for example, if the guess was 1234 and the codeword was 53363, the puzzle would display 1 black and 1 white). Each digit in the secret code appears in at least one guess.

The last line with empty space for the secret code is given for aesthetic reasons only.

Answer: Enter the secret code.

Example Answer: 122



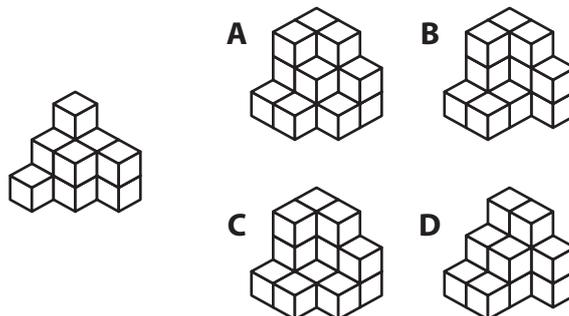
C3-4. Find the Match (1, 5 points)

One of the lettered items can be matched with the given item. Which one?

Note: The puzzles may require some knowledge of English and/or trivia facts.

Answer: The letter of the matching item.

Example Answer: C



C5-6. Fill in the Blank (7, 10 points)

Determine what should replace the “?” symbol to make the most sensible pattern.

Answer: What replaces the “?” symbol. Individual puzzles may have more instructions on how to submit your answer.

Example Answer: 21

2, 3, 5, 8, 13, ?, 34

C7-8. Not Like the Others (2, 3 points)

Each item in the list, except one, satisfies the same rule. Which one doesn't follow the rule?

Note: The puzzles may require some knowledge of English and/or trivia facts.

Answer: The item that doesn't follow the rule.

Example Answer: THREE

ONE TWO THREE SIX TEN

ONE TWO **THREE** SIX TEN
1 2 3 1 2 3 1 2 3 1 2 3

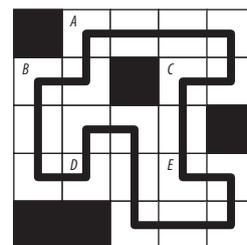
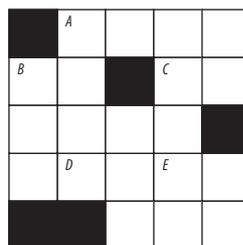
C9-12. Simple Loop (3, 4, 4, 5 points)

Draw a single closed loop (without intersections or crossings) through all white cells. Loop paths must be orthogonal.

The letters in the grid are for Answer purposes only.

Answer: Starting at the “A” in the upper-left and heading to the right, enter the letters in the grid in the order in which the loop encounters them, ending at the letter “A” (again).

Example Answer: ACEDBA

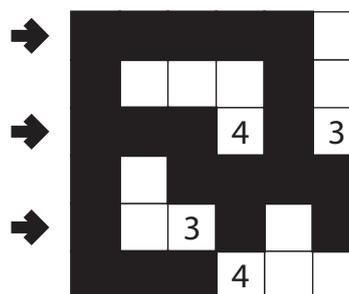
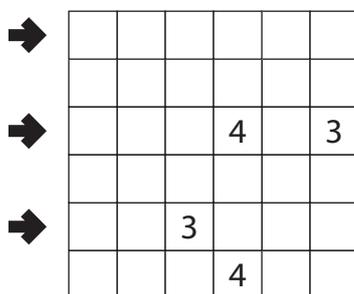


C18. Nurikabe (5 points)

Shade some cells black (leaving the other cells white) so that the grid is divided into non-overlapping regions; cells of the same color are considered in the same region if they are adjacent along edges. Each given number must be in a white region that has the same area in cells as that number. Each white region must have exactly one given number. All black cells must be in the same region. No 2x2 group of cells can be entirely shaded black.

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

Example Answer: 5, 31, 111



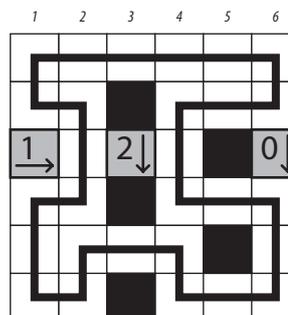
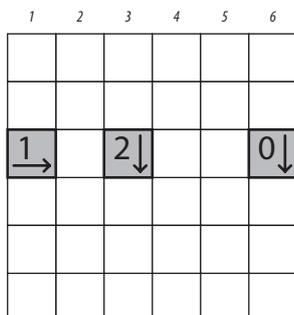
C19. Yajilin (9 points)

Blacken some white cells and then draw a single closed loop (without intersections or crossings) through all remaining white cells. Loop paths must be orthogonal. Blackened cells cannot share an edge with each other. Some cells are outlined and in gray and cannot be part of the loop. Numbered arrows in such cells indicate the total number of blackened cells along the direction of the arrow, starting in the arrowed cell and going along a row or column to the edge of the grid.

The numbers on top of the diagram are for Answer purposes only.

Answer: For each row from top to bottom, enter the column number of the left-most blackened cell. (Outlined gray cells are not blackened.) Use only the last digit for two digit numbers; e.g., use '0' for column 10. If none of the cells in a row are blackened, enter '0' for that row.

Example Answer: 035353



C20. Fillomino (13 points)

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 equal the area of the polyomino it belongs to. A polyomino may contain zero, one, or more of the given numbers. (It is possible to have a "hidden" polyomino: a polyomino without any of the given numbers. "Hidden" polyominoes may have any area, including a value not present in the starting grid, such as a 6 in a puzzle with only clues numbered 1-5.)

The dots in cells are only used for entering your answers.

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

Example Answer: 82523655

8			1	4	
		2	4		
	2			•	4
•		•	6		6 5
1	5		•	2	
4			•		1
			4	3	
	•	4	5		•

→ (8) (2) (5) (2) (3) (6) (5) (5)

8			1	4	
		2	4		
	2			•	4
•		•	6		6 5
1	5		•	2	
4			•		1
			4	3	
	•	4	5		•

→ (8) (2) (5) (2) (3) (6) (5) (5)

C21. Snake (12 points)

Locate a "snake" in the grid. The snake is a path that starts in a cell, goes through some number of cells orthogonally, and ends in a cell. The snake cannot go through any cells marked with 'x'. Each cell is used at most once by the snake. The snake may not touch itself, not even diagonally. (In other words, if two cells in the snake touch orthogonally, then they must be exactly one cell apart along the path of the snake, and if two cells in the snake touch diagonally, then they must be exactly two cells apart along the path of the snake.) Numbers outside the grid, if given, indicate how many cells in that row or column are occupied by the snake.

The two cells containing the ends of the snake are shaded.

Answer: For each designated row, enter its contents. Use O for a cell occupied by the snake and X for a cell not occupied by the snake. You may reverse the two symbols, as long as you are consistent.

Example Answer: OOXXX, XXXOO

	1	2	2	4
→ 2	■			
4				
→ 2			■	

	1	2	2	4
→ 2	■	■		
4		■	■	
			■	
→ 2			■	■

C22. Shapesweeper (70 points)

Place all of the given shapes into the grid. The shapes may be rotated and/or reflected. Shapes cannot cover the numbered cells. Shapes cannot touch each other (not even diagonally). Numbered cells indicate how many of the surrounding cells (including diagonally adjacent cells) will contain a shape part.

The characters on the shapes are only used for entering your answer.

Answer: For each designated row, enter the character for each shape that appears in that row, from left to right. Within a row, if a shape occupies more than one cell, enter that shape's character multiple times, once for each cell. If there are no shapes in that row, enter a single letter 'A'.

Example Answer: SSI, A

The diagram illustrates the Shapesweeper puzzle. On the left is a 7x7 grid with numbers in some cells: (1,4)=0, (2,6)=4, (3,2)=2, (4,1)=0, (5,7)=2, (6,5)=0, (7,2)=3, (7,4)=0. In the center are five shapes: 'I' (vertical bar), 'L' (L-shape), 'S' (S-shape), 'T' (T-shape), and 'O' (square). On the right is the same grid with the shapes placed: 'O' at (1,1), 'I' at (1,7), 'S' at (3,3) and (3,4), 'L' at (4,7), 'T' at (6,2) and (6,3), and 'I' at (7,7). Arrows point from the grid and shapes to the solution grid.

C23. Skyscrapers (44 points)

Place a number from 1 to X (integers only) into each cell so that each number appears exactly once in each row and column. (X is the number of cells in each row.) Each number represents a skyscraper of its respective height. The numbers outside the grid indicate how many skyscrapers can be seen in the respective row or column from the respective direction; smaller skyscrapers are hidden behind higher ones. Some numbers may already be filled in for you.

Answer: For each designated row, enter its contents. Do *not* include any numbers outside the grid.

Example Answer: 45312, 23541

The diagram illustrates the Skyscrapers puzzle. On the left is a 5x5 grid with numbers outside: top=5, right=(1,5)=3, (2,5)=3, left=(3,1)=4, (4,1)=3, bottom=(5,1)=4, (5,2)=2. On the right is the same grid with skyscrapers placed: (1,1)=4, (1,2)=5, (1,3)=3, (1,4)=1, (1,5)=2; (2,1)=5, (2,2)=4, (2,3)=1, (2,4)=2, (2,5)=3; (3,1)=1, (3,2)=2, (3,3)=4, (3,4)=3, (3,5)=5; (4,1)=2, (4,2)=3, (4,3)=5, (4,4)=4, (4,5)=1; (5,1)=3, (5,2)=1, (5,3)=2, (5,4)=5, (5,5)=4. Arrows point from the grid and numbers to the solution grid.