

# WPF PUZZLE GP 2016 INSTRUCTION BOOKLET

**Host Country: Russia**

**Andrey Bogdanov**

**Special Notes:** No special notes for this round.

## Points, Casual Section:

1.	Not Like the Others	1
2.	Not Like the Others	4
3.	Not Like the Others	11
4.	Mini Quiz	3
5.	Mini Quiz	14
6.	Mini Quiz	11
7.	Matches	17
8.	Matches	7
9.	Matches	16
10.	Shape division	5
11.	Shape division	6
12.	Shape division	29
13.	Alphametics	8
14.	Alphametics	15
15.	Alphametics	59
16.	Paint by Numbers	23
17.	Paint by Numbers	66
18.	Scrabble	8
19.	Scrabble	64
20.	Find the Differences (5)	15
21.	Find the Differences (10)	10
	(bonus for all 10)	2
22.	Find the Differences (10)	40
	(bonus for all 10)	13

**TOTAL:** 447

## Points, Competitive Section:

23.	Paint by Three	48
24.	Paint by Three	33
25.	Yin-Yang Fences	18
26.	Yin-Yang Fences	18
27.	Countries	52
28.	Countries	61
29.	Countries	52
30.	Easy as...	8
31.	Easy as...	42
32.	Easy as...	24
33.	Arrows	34
34.	Arrows	25
35.	Arrows	32
36.	Snake	22
37.	Snake	22
38.	Skyscrapers Domino Construction	14
39.	Skyscrapers Domino Construction	78

**TOTAL:** 583



## Casual Section (447 total points)

### 1-3. Not Like the Others (1, 4, 11 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  
1 2 3

TWO  
1 2 3

THREE

SIX  
1 2 3

TEN  
1 2 3

### 4-6. Mini Quiz (3, 14, 11 points)

Select an answer for each question such that the answers are correct and consistent.

**Answer:** The letters of the selected answer, in order.

**Example Answer:** CBA

Q1.  
How many days  
are in a week?

- A. 5
- B. 6
- C. 7

Q2.  
What is  
two times two?

- A. 3
- B. 4
- C. 5

Q3.  
What's the difference  
between the other  
two answers?

- A. 3
- B. 4
- C. 5

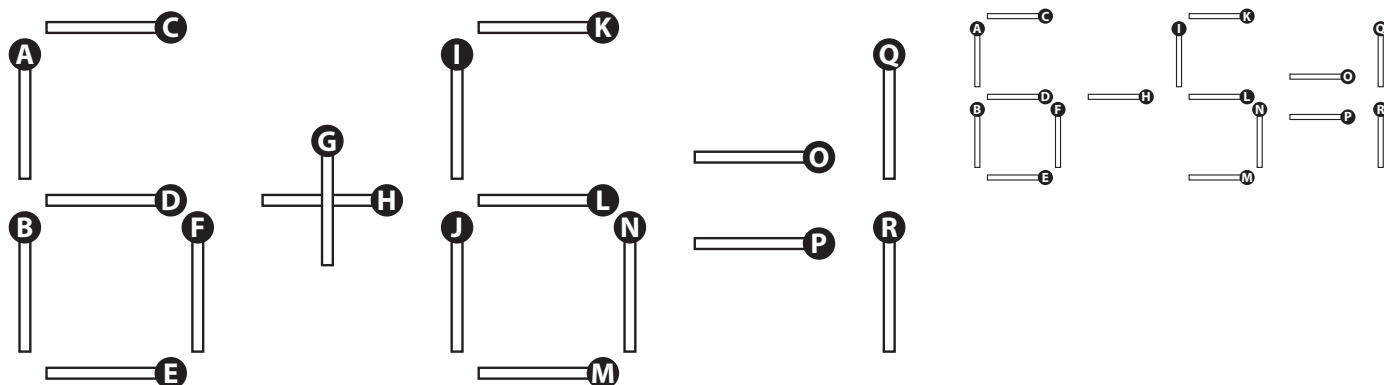
### 7-9. Matches (17, 7, 16 points)

Remove two matches so that the remaining matches express a correct arithmetic equality.

*The letters on the match heads are only for entering your answer.*

**Answer:** The letters of the two removed matches, in alphabetical order.

**Example Answer:** GJ





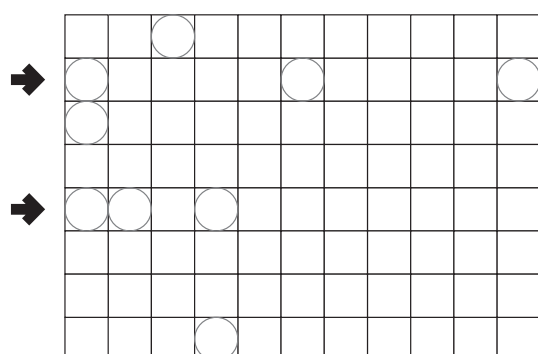

**18-19. Scrabble (8, 64 points)**

Put at most one letter into each cell so that the given words can be read either across (left-to-right) or down (top-to-bottom) in consecutive cells in the grid. Every word must appear in the grid exactly once, and no other words may appear in the grid (that is, if two cells are filled and are adjacent, then there must be a word that uses both of them). Every word must have either a blank cell or the edge of the grid before and after it. All letters must be (orthogonally) connected in a single group.

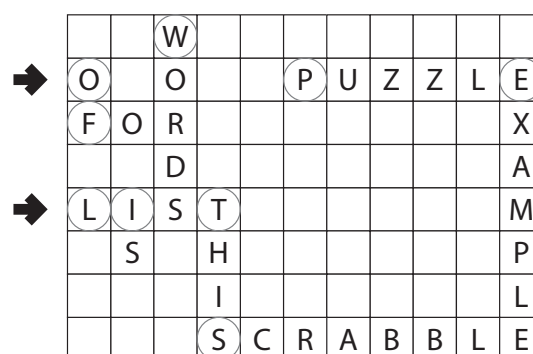
The starting cell of each word is marked with a circle.

**Answer:** For each designated row, enter its contents from left to right, ignoring any blank cells. If all cells in the row are blank, enter a single letter 'X'.

**Example Answer:** OOPUZZLE, LISTM



THIS  
IS  
EXAMPLE  
LIST  
OF  
WORDS  
FOR  
SCRABBLE  
PUZZLE


**20-22. Find the Differences (3, 1, 4 points per difference found; 2, 13 point bonus for finding all ten)**

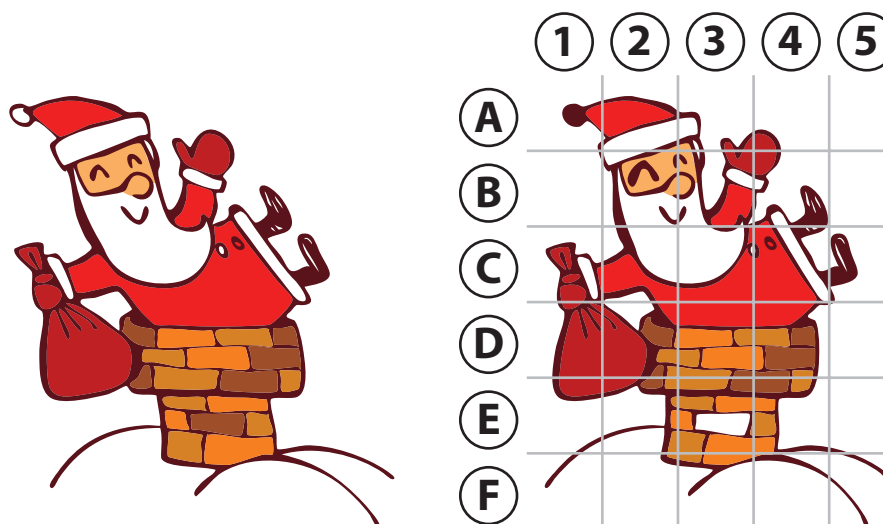
Find the differences between the two pictures, not counting rotation or distortion of the overall picture.

*The differences are clearly intentional, such as things that have disappeared, moved, changed size, shape, or orientation. Ignore the grid lines and subtle differences due to graphic anomalies or overall distortion. Each grid square will contain at most one difference, and each difference will stay within one grid square.*

The example puzzle has three differences. The first puzzle has five differences; the other two puzzles have ten differences. For the puzzles with ten differences, you will receive bonus points for finding all ten differences.

**Answer:** Enter the coordinates, row first (such as 'A1') for each difference found. You do not need to enter them in any particular order. (Do not put separating symbols, such as spaces or commas, between the coordinates.)

**Example Answer:** A1E3B2





## Competitive Section (583 total points)

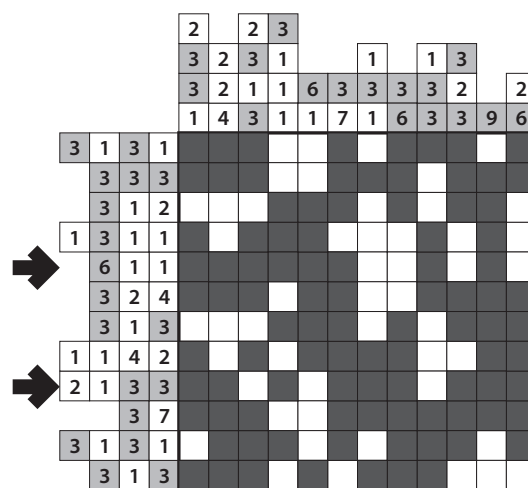
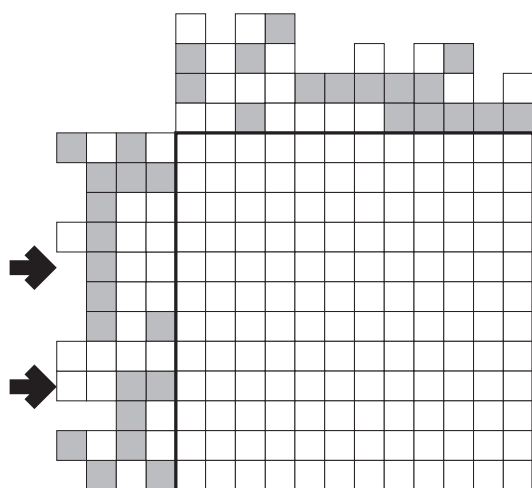
### 23-24. Paint by Three (48, 33 points)

Fill in each cell to the left of (and above) the main grid with a number, such that each shaded cell contains a number divisible by 3 and each unshaded cell contains a number not divisible by 3. No cell will contain a zero (0).

Then, blacken some cells in the grid such that the numbers to the left (and top) of the main grid represent the lengths of contiguous blackened cell blocks in the corresponding row (or column). The lengths are given in order from left to right (or top to bottom), and cell blocks must contain at least one unblackened cell between them.

**Answer:** For each designated row, enter its contents from left to right. Use 'o' for an unblackened cell and 'x' for a blackened cell.

**Example Answer:** XXXXXXOXXOXO, XXOXOXXXXXXX



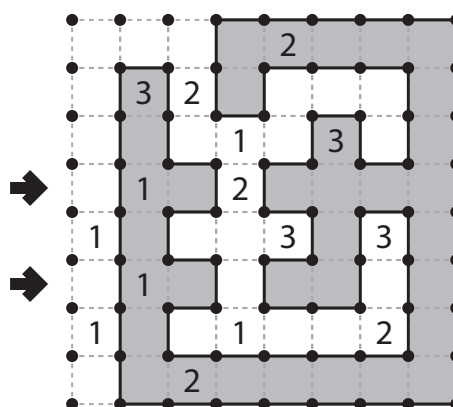
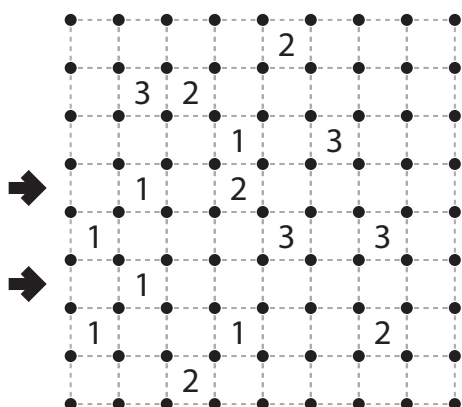
### 25-26. Yin-Yang Slitherlink (18, 18 points)

Draw a single, non-intersecting loop that only consists of horizontal and vertical segments between the dots. A number inside a cell indicates how many of the edges of that cell are part of the loop.

All cells outside the loop must be connected orthogonally. Every 2x2 group of cells must contain at least one cell inside the loop and one cell outside the loop.

**Answer:** For each designated row, enter the lengths (number of cells) of each segment of cells *inside* the loop, 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 inside the loop for a row, enter the single digit '0'.

**Example Answer:** 24, 221



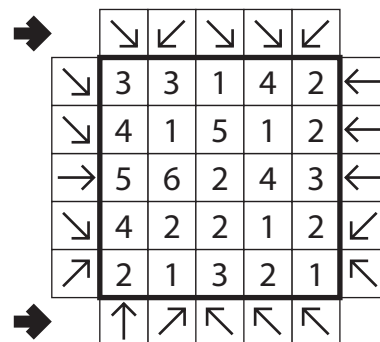
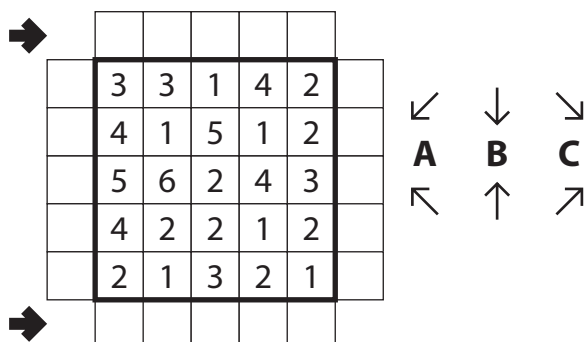


### 33-35. Arrows (34, 25, 32 points)

Draw an arrow in each of the empty cells outside the main grid. Each arrow must point in one of the eight standard directions, and must point at at least one numbered cell. Each numbered cell must be pointed at by exactly that number of arrows.

**Answer:** The contents of indicated rows, from left to right. Use 'A' for an arrow pointing diagonally left, a 'B' for an arrow pointing orthogonally, and 'C' for an arrow pointing diagonally right.

**Example Answer:** CACCA, BCAAA



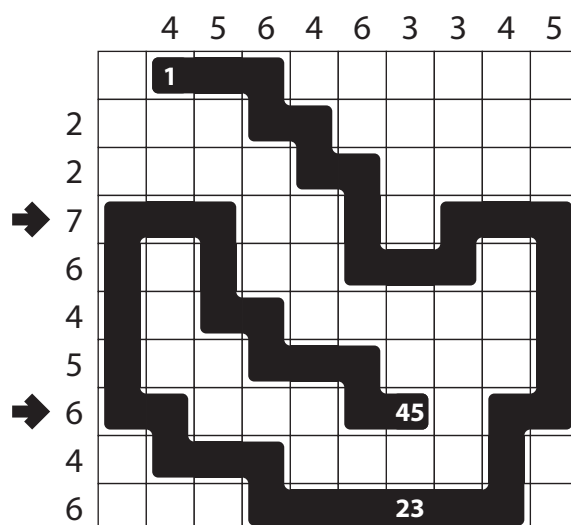
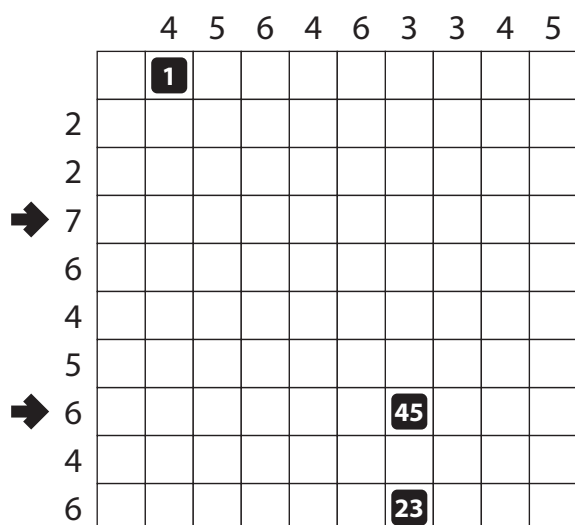
### 36-37. Snake (22, 22 points)

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. 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 snake must occupy exactly 45 cells. The two ends of the snake and the midpoint of the snake are given.

**Answer:** For each designated row, enter its contents. Use ○ for a cell occupied by the snake and ✕ for a cell not occupied by the snake. (Submissions that reverse ○ and ✕ will be credited.)

**Example Answer:** 000XX0X000, 00XXX00X00 (or XXX00X0XXX, XX000XX0XX)




**38-39. Skyscrapers Domino Construction (14, 78 points)**

Label the dominoes such that the diagram contains a full set of dominoes. If two domino halves touch along an edge (and are not part of the same domino), then they must contain the same number. The orientation of the numbers do not matter. A full set of dominoes will be provided for your convenience; the smallest and largest numbers on the dominoes may change from puzzle to puzzle.

The digits also represent skyscrapers of their respective heights. The numbers outside the grid indicate how many skyscrapers can be seen in the respective row or column from the respective direction (a skyscraper hides skyscrapers of equal or smaller height).

**Answer:** For each designated row, enter all the numbers in that row, from left to right. Skip over any empty spaces between dominoes.

**Example Answer:** 2332, 5113

