

UKPA Skyscrapers Contest

Thursday 25 February – Tuesday 2 March 2021

Duration: 120 minutes

INSTRUCTION BOOKLET

This contest contains 22 puzzles – a few standard Skyscrapers puzzles and a large number of variants.

The points distribution for the contest is as follows.

Puzzle	Type	Grid Size	Points
1	Standard	5 × 5	10
2	Standard	6 × 6	15
3	Standard	6 × 6	50
4	Standard	7 × 7	70
5	Diagonal	5 × 5	20
6	Diagonal	6 × 6	70
7	Blanks	5 × 5	20
8	Blanks	6 × 6	30
9	Sums	6 × 6	25
10	Sums	7 × 7	50
11	Regions	6 × 6	45
12	Regions	7 × 7	70
13	Consecutive	5 × 5	10
14	Consecutive	8 × 8	50
15	One Away	5 × 5	25
16	One Away	6 × 6	40
17	All Twos	5 × 5	15
18	All Twos	6 × 6	35
19	Coded	6 × 6	60
20	Coded Sums	7 × 7	90
21	Parkour	6 × 6	50
22	Parkour	7 × 7	50
Total			900

All puzzles and examples have been set by David McNeill and tested by Adam Bissett.

Participant Details

To participate, you will need to register online with the UK Puzzle Association at <http://forum.ukpuzzles.org/ucp.php?mode=register> . Any questions related to the instructions should be raised in the discussion thread at <http://forum.ukpuzzles.org/viewtopic.php?f=5&t=2294> . The contest is designed to be printed out and solved on paper. The competition booklet will consist of 11 pages with two puzzles on each page.

Shortly before the contest starts, the password protected pdf file will be made available at <https://ukpuzzles.org/contests.php?contestid=60> . It is recommended that you download this file before retrieving the password. The contest will start at 09:00 GMT on Thursday 25 February 2021, when the password will be made available. Upon retrieving the password, you will have 120 minutes to solve the puzzles and submit your answers via the entry page at <https://ukpuzzles.org/answers.php?contestid=60> . The contest will end at 23:00 GMT on Tuesday 2 March 2021, so it is highly recommended that you retrieve the password and start solving before 21:00 GMT on Tuesday 2 March 2021.

For answer submission, you will need to enter the contents of 2 rows (labelled A and B) in each puzzle. Please enter in the format 123456,364215 (i.e. with a comma between the two rows but no space). In puzzles 7 & 8 (Blanks), an empty cell should be indicated by X e.g. 1234X5, 2X5314.

Rules and Examples

General

Complete the grid so that each row and column contains the digits 1 - N where $N \times N$ is the size of the grid. In puzzles 7 and 8 (Blanks), one cell in each row and column will remain empty. Each row and column must contain the digits 1 - N where $(N+1) \times (N+1)$ is the size of the grid.

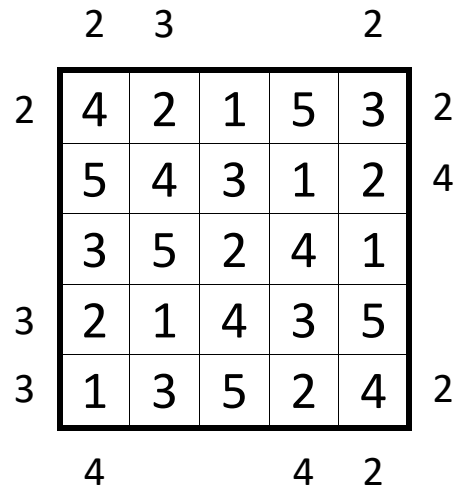
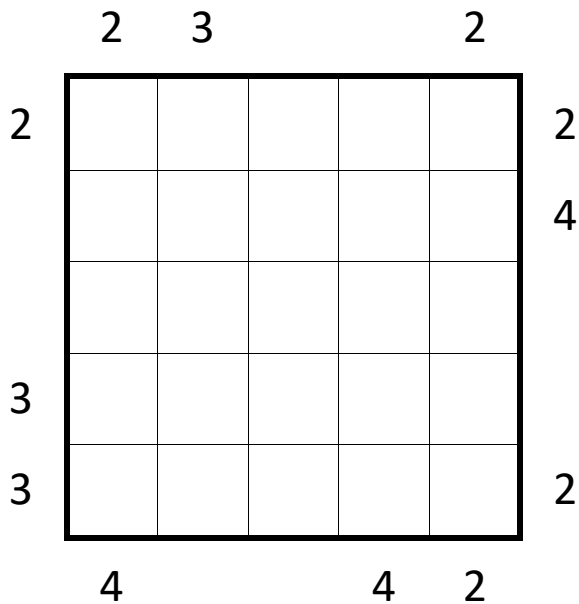
Examples

The examples are presented two per page, as will also be the case with the competition puzzles. Most examples are presented using a 5×5 grid, although the corresponding competition puzzles can vary in size as detailed in the points distribution table above. The examples for puzzles 19 (Coded) and 20 (Coded Sums) are presented using the same-sized grids as for the competition puzzles.

Answer keys for the top and bottom rows of each example are given in this booklet. In the contest, the rows forming the answer key will be labelled A and B, and will not necessarily be the top and bottom rows.

Puzzles 1-4: Standard

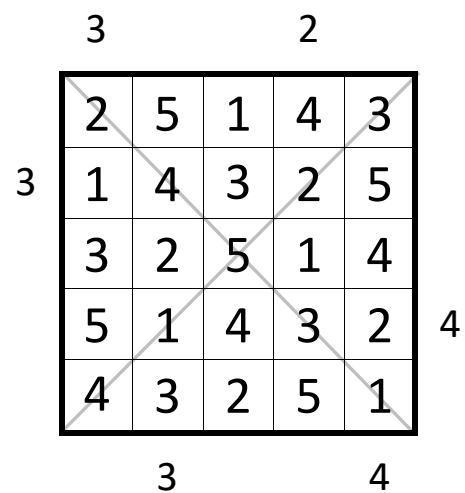
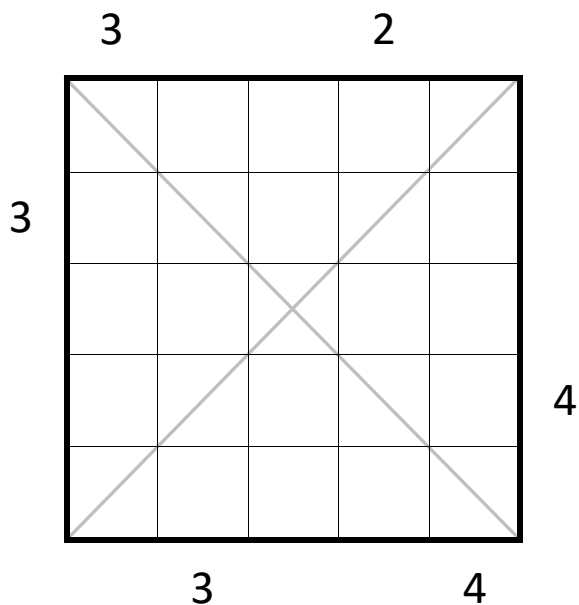
Each row and column must contain a building of each height from 1 - N where $N \times N$ is the size of the grid. The clues outside the grid indicate how many buildings are visible in the corresponding row or column. Taller buildings hide all shorter buildings lying behind them.



Answer key (top and bottom rows): 42153,13524

Puzzles 5&6: Diagonal

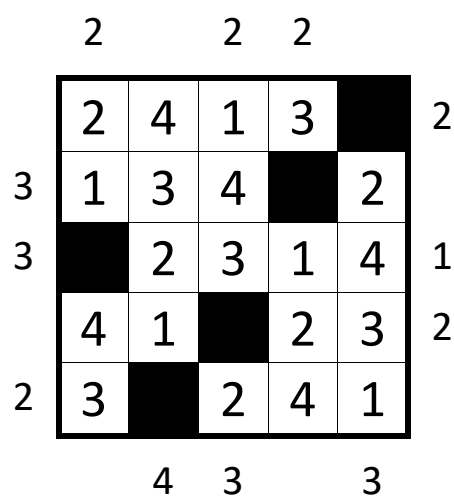
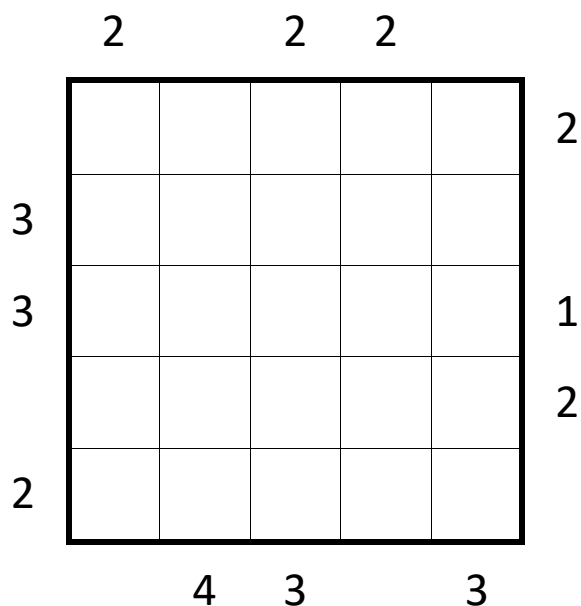
Standard Skyscrapers rules apply. In addition, both of the two main diagonals must contain a building of each height.



Answer key (top and bottom rows): 25143,43251

Puzzles 7&8: Blanks

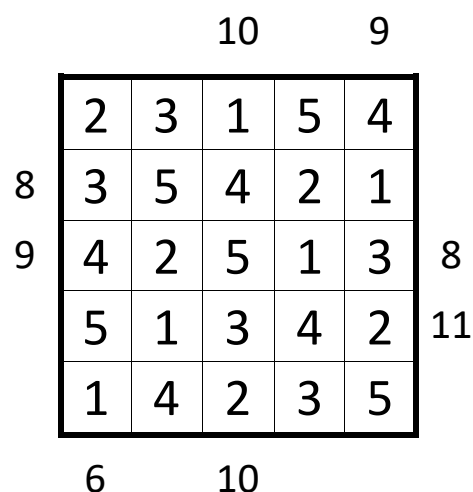
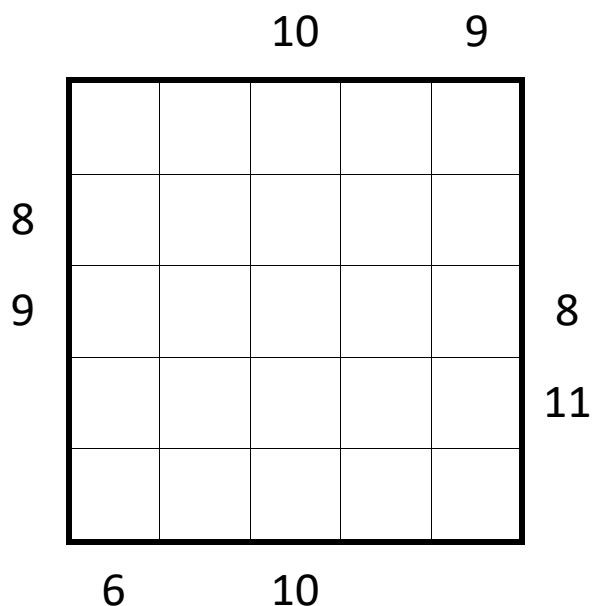
Standard Skyscrapers rules apply except that exactly one cell in each row and column will remain empty. Each row and column must contain the digits 1 - N where $(N+1) \times (N+1)$ is the size of the grid.



Answer key (top and bottom rows): 2413X,3X241

Puzzles 9&10: Sums

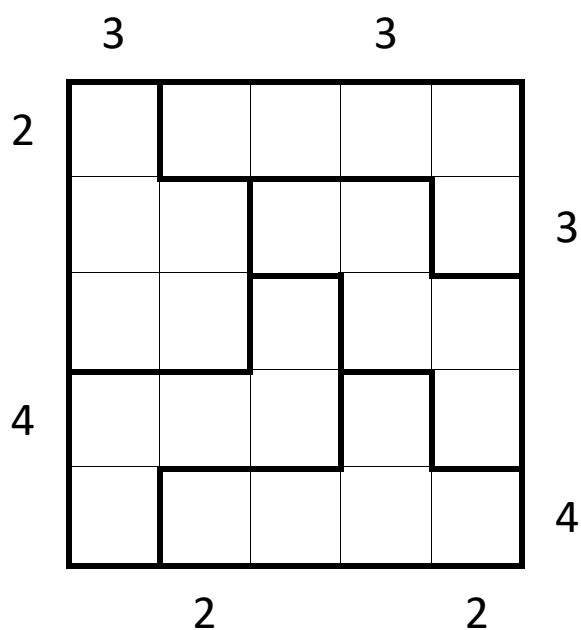
Standard Skyscrapers rules apply. However, outside clues indicate the sum of the heights of all visible buildings.



Answer key (top and bottom rows): 23154,14235

Puzzles 11&12: Regions

Standard Skyscrapers rules apply. In addition, each outlined region must contain a building of each height.

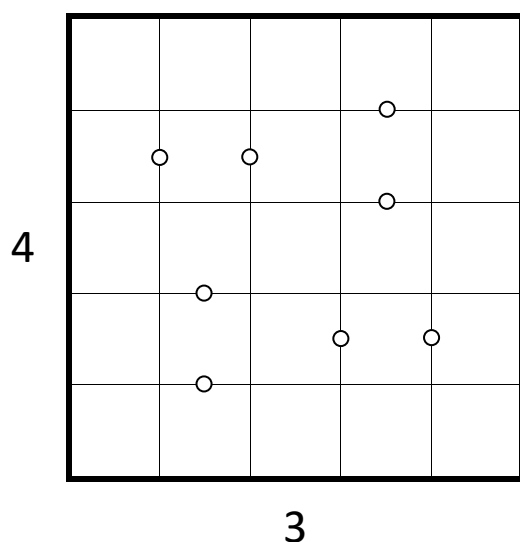


	3		3		
2	3	1	5	2	4
	1	5	2	4	3
	4	2	1	3	5
4	2	3	4	5	1
	5	4	3	1	2
		2		2	

Answer key (top and bottom rows): 31524,54312

Puzzles 13&14: Consecutive

Standard Skyscrapers rules apply. Two digits separated by a white circle must be consecutive. Not all white circles are given.

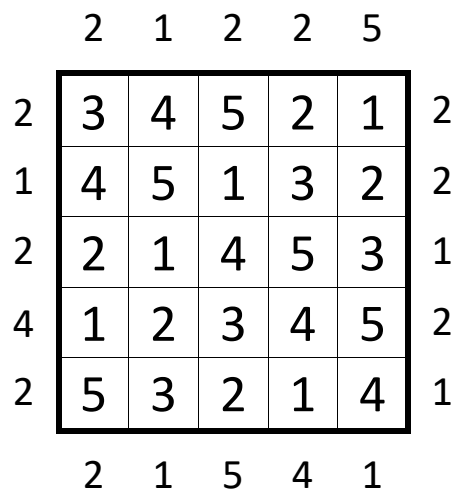
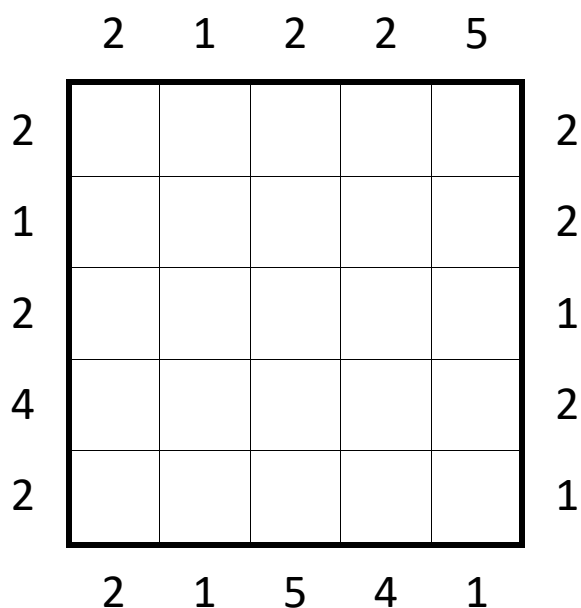


	4	1	5	3	2
	1	2	3	4	5
4	2	3	4	5	1
	5	4	1	2	3
	3	5	2	1	4
			3		

Answer key (top and bottom rows): 41532,35214

Puzzles 15&16: One Away

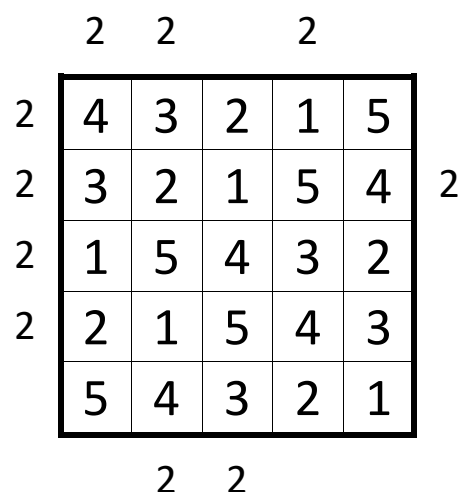
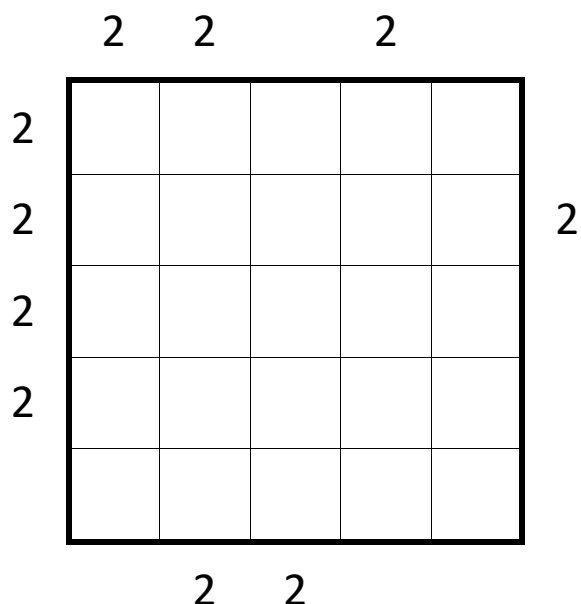
Standard Skyscrapers rules apply. However, each given clue is exactly one away from the correct clue value.



Answer key (top and bottom rows): 34521,53214

Puzzles 17&18: All Twos

Standard Skyscrapers rules apply. All clues of 2 are shown. If no clue is shown, there cannot be exactly 2 buildings visible in the corresponding row or column.



Answer key (top and bottom rows): 43215,54321

Puzzle 19: Coded

Standard Skyscrapers rules apply. In the clues, each of the letters A-F stands for exactly one of the digits 1-6.

	D	A	B	F	D	D	
D							A
B							E
C							B
F							D
D							F
A							D
	A	D	A	A	B	D	

A	
B	
C	
D	
E	
F	

Solution on next page

Puzzle 20: Coded Sums

Standard Skyscrapers rules apply. However, outside clues indicate the sum of the heights of all visible buildings. In these clues, each of the letters A-J stands for exactly one of the digits 0-9.

	GI	GH	DA	J	GH	GJ	GB	
GI								GD
J								GF
GA								GJ
B								DC
GB								GI
GJ								GF
GB								J
	GD	GF	E	GI	GF	GG	J	

A	
B	
C	
D	
E	
F	
G	
H	
I	
J	

Solution on next page

Puzzle 19: Coded (Solution)

Standard Skyscrapers rules apply. In the clues, each of the letters A-F stands for exactly one of the digits 1-6.

	D	A	B	F	D	D	
D	4	1	6	2	5	3	A
B	6	5	4	3	2	1	E
C	1	2	3	5	4	6	B
F	2	3	5	6	1	4	D
D	5	6	1	4	3	2	F
A	3	4	2	1	6	5	D
	A	D	A	A	B	D	

A	3
B	1
C	5
D	2
E	6
F	4

Answer key (top and bottom rows): 416253,342165

Puzzle 20: Coded Sums (Solution)

Standard Skyscrapers rules apply. However, outside clues indicate the sum of the heights of all visible buildings. In these clues, each of the letters A-J stands for exactly one of the digits 0-9.

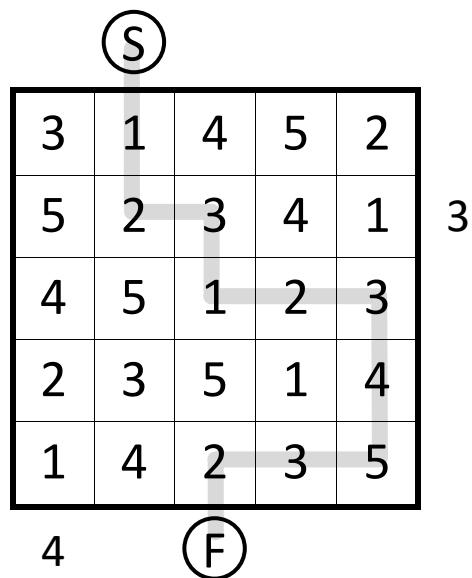
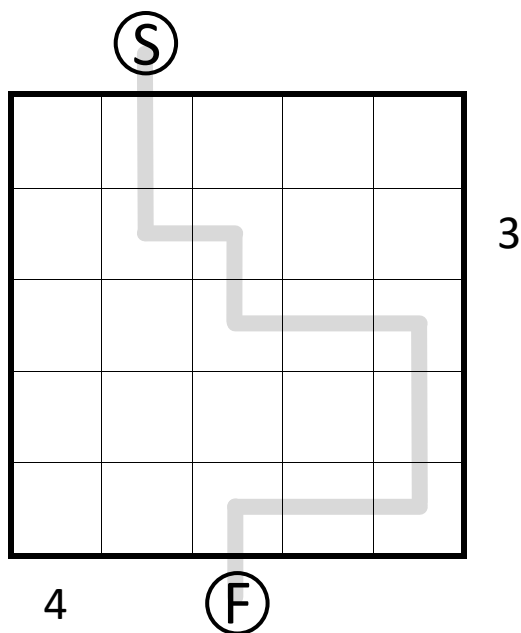
	GI	GH	DA	J	GH	GJ	GB	
GI	6	2	3	7	1	4	5	GD
J	7	5	4	1	6	2	3	GF
GA	3	1	5	2	7	6	4	GJ
B	1	7	6	4	3	5	2	DC
GB	2	4	1	3	5	7	6	GI
GJ	4	6	7	5	2	3	1	GF
GB	5	3	2	6	4	1	7	J
	GD	GF	E	GI	GF	GG	J	

A	5
B	8
C	0
D	2
E	9
F	6
G	1
H	4
I	3
J	7

Answer key (top and bottom rows): 6237145,5326417

Puzzles 21&22: Parkour

Standard Skyscrapers rules apply. In addition, a Parkour athlete has traversed the city as shown by the grey route. The start (S) and finish (F) are both at ground level. The athlete can jump up to a level which is exactly 1 unit higher or can drop to a level which is either 1 or 2 units lower.



Answer key (top and bottom rows): 31452,14235