



QUALIFICATION FOR THE
DUTCH
PUZZLE AND SUDOKU
CHAMPIONSHIPS 2022

FRIDAY 25TH UNTIL MONDAY 28TH OF MARCH 2022

INSTRUCTION BOOKLET

ORTEC
OPTIMIZE YOUR WORLD

LEIDEN 2022
European City of Science

Dear participants to the
Dutch Puzzle and Sudoku Championships 2022,

The Championships will be organised by the Dutch Puzzle Association **WCPN** (World Class Puzzles from the Netherlands) in association with **ORTEC**, one of the world leaders in optimization software and analytics solutions, and **Leiden, City of Science**.

This year, the championships will consist of two parts:

- Online qualifications for both championships, that will be held from Friday March 25th 12:00 CET (noon) until Monday March 28th 11:59 CEST (noon).
- A live final that will be held in the summer of 2022 in Leiden, as part of Leiden, European City of Science 2022.

This Instruction Booklet is only applicable for the qualification round. Two weeks prior to the finals a separate Instruction Booklet for the finals will be published.

In this Instruction Booklet you will find all necessary information about the online qualification for the championships; amongst which the programme, the rules and regulations and example puzzles and sudokus, including examples of solutions. You will also find the number of points that can be rewarded for each puzzle, such that you can decide in advance which puzzles you want to solve.

We wish you lots of fun preparing and good luck during the qualification.

On behalf of WCPN,

Richard Stolk (+31-6 - 26 33 30 93)

Saskia Benedictus (+31-6 - 25 08 33 64)

René Gilhuijs (+31-6 - 48 42 61 35)

P.S. We would like to thank all puzzle authors; Bram de Laat, Arvid Baars, Saskia Benedictus en Richard Stolk; thank you!

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Overview of puzzles and points

OVERVIEW PUZZLE QUALIFICATIONS 2022		OVERVIEW SUDOKU QUALIFICATIONS 2022	
Puzzle	Points	Sudoku	Points
1. Capsules	16	1. Classic	32
2. Simple loop	24	2. Classic	51
3. Cave	26	3. Classic	66
4. Fillomino	27	4. Classic	95
5. Numberlink	28	5. XV	41
6. LITS	34	6. Diagonal	55
7. Hidato - holes	38	7. Palindrome	57
8. Crazy pavement	39	8. Clone	58
9. Boxes	40	9. German whispers	61
10. Touching pentominos	42	10. Odd-even	68
11. Nurikabe	48	11. Anti knight	71
12. Star battle	69	12. Irregular	73
13. Maxi loop	76	13. Point to next	80
14. Easy as ABC	82	14. Pole position	92
15. Slitherlink	90		
16. Magnets	107		
17. Shimaguni	114		
total points	900	total points	900

*When you submit your solutions within the given time limit of 90 minutes, you will be rewarded **10 bonus points** for every full minute your solutions were received before the time limit exceeds. The time noted upon receipt of your solution form is binding.*

Pay attention: the number of points are an indication of the difficulty of the puzzles during the actual qualification. The difficulty of the puzzles in this booklet can deviate from these values!

The qualification rounds

The qualification consists of two rounds of 90 minutes each; one round for the Puzzle championship and one round for the Sudoku championship. Although the qualifications consists of two separate championships, and you are not obliged to take part in both, it is highly recommended that you do participate in both qualifications. The selection for the live finals will be based on the ranking of both qualification rounds.

Who can participate

Everyone who likes logical puzzles and sudokus can participate in the qualifications. During the qualification four categories of participants will be distinguished:

- members of the Dutch Puzzle Association WCPN
- participants from our sponsor ORTEC
- students (at Dutch universities or colleges)
- other interested people

After the online qualifications, the best participants from each of these categories will be invited to participate in the live championships, except from the category of 'other interested people'.

How to participate in the qualification

To participate you first have to register online on the website of the championships (nk.wcpn.nl or press [here](#)). Use your own name (don't use an alias) to register and submit answers. When you are registered you can choose your own time interval to participate in a round, anywhere between Friday March 25th 12:00 CET (noon) and Monday March 28th 11:59 CEST (noon). Solutions submitted after Monday March 28th 11:59 (noon) won't be taken into account for the results. Be aware that a round runs for 90 minutes exactly, and can't be paused. Make sure that you choose a time interval in which you can solve the puzzles undisturbedly.

When you decide to start a qualification you go to the page "participate", in the menu on right side of the website of the championships. There you press the button "start puzzle qualification" or "start sudoku qualification". From that moment on the 90 minutes begin to count down, and you are directed automatically to the 'submit' page with the answering form. On this page, you can download and print the actual puzzle booklet. This puzzle booklet is a pdf file, so make sure you have installed a program in which you can open and print a pdf file (e.g. Acrobat Reader). **Be aware** that the puzzle booklet is written in Dutch, and the last pages contain the translated english texts!

Also keep your instruction booklet close at hand. This can be useful for examples of all puzzles and clues, and for the puzzle instructions.

How to submit your solutions?

On the "submit" page you will find the timer that counts down the 90 minutes, and you can fill in the answer codes for each solved puzzle. You submit your answers by pressing "submit". You can submit your answers as often as you like and you can also correct your previous answers. The system keeps the last answer that you submit so you don't need to fill in

answers again. The last submitted answer form is the one that counts, even if you have corrected a right answer in a wrong one. The system doesn't accept anymore answers once the 90 minutes have passed. So keep an eye on the remaining time.


Cluelines

For each puzzle and sudoku you will need to submit cluelines, that are described further on in this booklet. For many puzzles this implies copying the cell values of two rows in the corresponding cells on the answer form.

Underneath a screenshot is given of a filled in answer form. When you hover your mouse over the question mark an example will pop up of the clueline you have to submit (of course these values are randomly chosen).

Answer form:

1. Capsules:	A <input type="text" value="2525152525"/>	B <input type="text" value="3134341434"/>	?
2. Rondweg:	A <input type="text" value="10"/>	B <input type="text" value="10"/>	?
3. Cave:	A <input type="text" value="oiioiooii"/>	B <input type="text" value="ooiiiioii"/>	?

 **Account**

- [Instellingen](#)
- [Uitloggen](#)

Invoer eisen: 10 letters (i of o) Voorbeeld:
iiiooioii

What's at stake

At stake is qualification for the live finals of the Dutch Puzzle and Sudoku Championships 2022.

During the live finals there will be prizes for the top three participants in each category, with the exception of the category 'other interested people'. To be crowned Dutch Puzzle Champion or Dutch Sudoku Champion, you have to be a member of the Dutch Puzzle Association WCPN. By way of exception, this year the membership can also be obtained after the qualifications, if necessary.

Apart from crowning the Dutch Champions, the championships also acts as part of the qualification for the World Puzzle and Sudoku Championships. Due to Covid it is at this time uncertain if these championships will be held in 2022.

We have to mention here that all participants in the World Puzzle and Sudoku Championships for the Dutch team, have to have the Dutch nationality and need to be a member of WCPN. Furthermore we need to mention that participation in the World Championships is at your own expence.

Etiquette

We expect everybody to solve the puzzles individually, without the help of aids like calculators, solvers, etc. and without having contact about the puzzles with other people. In an online tournament we obviously cannot check the participants' behaviour. Therefore, in the spirit of good sportsmanship, we expect everybody to participate in a fair, honest way. When we nevertheless detect that someone has cheated, the organization has the right to remove this person from the results.

Qualification

After the qualification there will be results for each championship. The best participants of the categories "WCPN", "ORTEC" and "Students" will be invited for the finals, which will be held in the summer of 2022 in Leiden. How many participants can qualify depends on the COVID regulations and on the capacity of the venue. The maximum number of participants in the final will be 60. The three best participants in the categories "WCPN" and "ORTEC" during the previous Dutch Championships in 2021 will be exempt from qualification.

Qualification result

The qualification result will be determined on the basis of the number of points that a participant has scored during the period of 90 minutes. In case a participant solves all puzzles correctly within the 90 minutes he/she will receive a bonus of 10 points for each full minute that he/she has submitted before the end of the 90 minutes. In case of a draw, the participant that has sent in his or her results quicker wins.

Printing of puzzles

The puzzles can be downloaded from the moment the participant pushes the "Start (puzzle or sudoku qualification)"-button. You need to print the puzzles yourself. Be sure your printer is on and ready to print. (Hint: start solving directly after printing the first page or solve the puzzles digitally if you have a suitable device!). **Be aware** that the puzzle booklet is written in Dutch, and the last pages contain the translated english texts!

Questions

If you have any questions or remarks about (the qualification for) The Dutch Puzzle and Sudoku Championship 2022, or about the content of this Instruction Booklet and/or the puzzles/sudokus it contains, you can send an email to: wcpn.pzzl@gmail.com.

Composing the clues

- ➔ For each Sudoku and each Puzzle a code needs to be submitted in an answer form for two solved rows. In the puzzle booklets, the corresponding rows are indicated by an orange arrow.

For **sudokus** you just have to copy all the digits in the indicated rows:

Sudoku	1	3	4	8	6	9	7	2	5
	2	4	7	1	5	3	8	9	6

Below it is explained how the clues of each **puzzle** needs to be composed. It makes no difference whether letters are capitalised or not.

1. Capsules

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

- give the digits of all the cells in the indicated rows.

2. Simple loop

12
8

- give the number of 90° angles that the loop makes in the indicated rows. Be aware: this can be any number between 1 and 14!

3. Cave

I	I	O	O	O	O	I	O	I	I
O	I	I	I	O	O	I	O	I	O

- indicate for each cell in the indicated row whether the cell falls inside (I for IN) or outside (O for OUT) the loop.
- Be aware: use the letter I for IN, not the digit 1; and use the letter O for OUT, not the digit 0.

4. Fillomino

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

- give the digits of all the cells in the indicated rows. Each cell contains the digit that belongs to the matching bold outlined region.

5. Numberlink

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

- give the digits of all the cells in the indicated rows. Each cell contains the digit that belongs to the matching line traveling through that cell.

6. LITS

L	L	T	L
T	S	I	

- For LITS, each letter represents one of the given shapes. Give the letters of the shapes appearing on the indicated rows from left to right. Empty cells can be ignored. The cluelines of both indicated rows may have a different numbers of letters!

7. Hidato Holes

0	9	8	6	1	2	4	9	0	1
9	-	7	6	4	3	-	6	2	1

- With Hidato there are multi-digit numbers. The digits representing the tens should be omitted, such that only the last digit of each number remains. These digits should be given for each indicated row.
- A black cell will give a hyphen (-).

8. Crazy pavement

B	B	W	W	W	B	B	B	W	W
W	B	B	W	B	W	W	W	B	B

- indicate for each cell in the indicated row whether the cell is black (B for BLACK) or white (W for WHITE).

9. Boxes

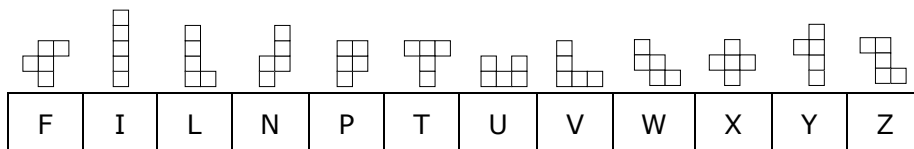
E	K	P	Z
C	F	L	R

- Give all the letters that are within the same box as another certain letter (for example the A or the B). The solution therefore consists of 4 letters. Give these in alphabetical order!

10. Touching pentominos

T	N	Z	I
F	W		

- For Pentominos, each letter represents one of the given shapes (see below for which letters represent which shapes). Give the letters of the shapes appearing on the indicated row, from left to right. Empty cells can be ignored. The cluelines of both indicated rows may have a different numbers of letters!



Composing the clues

11. Nurikabe

W	W	B	W	B	B	W	B	W	B
B	W	B	B	W	W	B	W	W	B

- indicate for each cell in the indicated row whether the cell is black (B for BLACK) or white (W for WHITE).

12. Star battle

5	2	1
3	4	1

- Indicate the number of cells before the first star, in between both stars, and behind the last star. Hence, for each indicated row three digits are to be submitted.

13. Maxi Loop

8
2

- give the number of 90° angles that the loop makes in the indicated rows.

14. Easy as ABC

A	-	B	-	C	D	E
-	A	C	D	-	E	B

- give the letters of all the cells in the indicated rows.
- An empty cell will give a hyphen (-).

15. Slitherlink

I	O	O	O	I	I	O	O	I	I
O	I	I	O	I	O	O	I	I	I

- indicate for each cell in the indicated rows whether the cell falls inside (I for IN) or outside (O for OUT) the loop.
- Be aware: use the letter I for IN, not the digit 1; and use the letter O for OUT, not the digit 0.

16. Magnets

-	P	M	P	M	-	-	P	M	P
P	M	-	-	P	M	P	-	M	P

- indicate for each cell in the indicated rows whether the cell contains a positive magnetic pole (P for PLUS) or a negative magnetic pole (M for MINUS).
- An empty cell will give a hyphen (-).

17. Shimaguni

W	B	B	W	W	B	B	W	B	W
B	W	B	B	W	W	W	B	W	B

- indicate for each cell in the indicated rows whether the cell is black (B for BLACK) or white (W for WHITE).