# WPC 2003 THE NETHERLANDS 

## NSTRUCTION B00KLET



12 ${ }^{\text {TH }}$ WORLD PUZZLE CHAMPIONSHIP THE NETHERLANDS 2003

Dear friends,

This is the instruction booklet for the 12th World Puzzle Championship, to take place at National Sports Center Papendal in Arnhem, the Netherlands, from October 14-19. On your arrival you'll receive a printed copy of this booklet.

For the first time we publish this information one week before the start of the event. We hope this will help those who don't have English as their native language (as we ourselves) in preparing for the competition.

In this booklet you will find the schedule of the event. As we are still finalizing the preparations minor changes can be made until the last day.

Next to that you'll find information about the judging of the puzzles. And the most important: instructions about all the puzzles that will be solved during the competition. There will be an instructions meeting on Wednesday morning. But already from now on it is possible to ask questions and have discussions in a special forum on the site of the World Puzzle Federation (look at http://www.worldpuzzle.org/forum/).

As we stated in the invitation: it is our aim to organize a professional competition. Of course there will be familiar puzzles but you'll also discover some new and surprising items, we hope you will enjoy.

Next to that we hope this championship will be a social event as well. A chance to meet old friends and make new ones. That's why we planned a couple of happy hours in the Grand Café that will be to our disposition. To stimulate the social aspect of the championship we will provide some vouchers for free drinks, valid during the happy hours. There will also be games to play: from farmers bridge to table tennis, and from darts to risk.

All the other information you need (travel information, information about the weather in Holland and about the availble sports facilities) will be mailed to you seperately. And more will follow when you arrive at Papendal.

We are really looking forward to seeing you all. Let's make it another unforgettable event.

On behalf of the organizing committee, Rob Geensen

## SCHEDULE

## Tuesday, October 14

- all day Arrival
- 18.30 Get-together party in Foyer 1 with introduction of all the teams
- 21.00-22.00 Happy hour in the Grand Café


## Wednesday, October 15

- 7.30-9.00
- 9.30
- 11.30
- 12.30
- 13.30
- 19.00
- 22.00

Breakfast in the restaurant
Puzzle instructions in the Congress Hall (room 11, 12 and 13)
Photo session
Lunch in Foyer 1
Optional excursions
Dinner at the Open Air Museum
Grand Café

## Thursday, October 16

- 7.30-9.00

Breakfast in the restaurant

- $9.30-12.30 \quad$ Puzzle competition part I and II in the Congress Hall
- 9.45 General assembly WPF in Foyer 2
- 12.30 Lunch in Foyer 1
- 14.00-17.30 Competition part III to VI in the Congress Hall (part VI in Foyer 2)
- 18.30 Dinner in Foyer 1
- 21.00-22.00 Happy hour in the Grand Café


## Friday, October 17

- 7.30-9.00 Breakfast in the restaurant
- 9.30-12.15 Competition part VII and VIII in the Congress Hall
- 9.45 General assembly WPF in Foyer 2
- 12.30 Lunch in Foyer 1
- 14.00 Competition part IX to XII in the Congress Hall
- $18.30 \quad$ Dinner in Foyer 1
- 21.00-22.00 Happy hour in the Grand Café


## Saturday, October 18

- 7.30-9.00
- 9.30-11.00
- 11.00
- 12.30
- 14.00 Free time (sports facilities available)
- 19.00-24.00
- 24.00-2.00

Breakfast in the restaurant
Competition part XIII and XIV in the Congress Hall
Individual finals in the Congress Hall
Lunch in Foyer 1
Farewell dinner party in the Congress Hall

## Sunday, October 19

- all day

Departure

## JUDGING

- All puzzles must be solved completely; puzzles with incomplete or unclear answers will be rejected.
- No negative points can be scored, only positive
- The participants are only allowed to use writing material supplied by us. We will supply blue pens, pencils and erasers. The use of computers, calculators et cetera is not allowed.
- In this instruction booklet there is a sample of all puzzles. Note that there can be differences between the numbers mentioned in the introduction and the given examples in this booklet.
- Time bonus: there are five rounds with a time bonus. The fastest five individuals (parts IV, X, XIII) or teams ( $\mathrm{V}, \mathrm{XII}$ ) will get extra points if all puzzles are solved correctly. If there are bonusses left after the time for that round all puzzlers or teams will get 5 minutes extra time, until all bonusses are gone. If not, another 5 minutes extra, and so on.
- After each round we will give all teamcaptains five complete clean sets of puzzles and solutions.
- Judging: during the championships you will get your own puzzles back. If you have any questions about judging or points: your teamcaptain will be happy to ask them to me.

Good luck, and have a lot of fun.
Hans Eendebak

PUZZLE 1 - ASTEROID BELT (New York, USA 1992)
Destroy all the asteroids using the flying saucers. Each saucer shoots exactly twice. A shot continues in a straight line, destroying all asteroids that it hits. You are not allowed to hit any asteroid more than once.

POINTS
15

PUZZLE 2 - MULTIPLICATION PUZZLE (Brno, Czech Republic 1993)
The product of the digits of each number to be filled in is equal to the number in the black cell. A number above a diagonal refers to the digits to be filled in to the right of that cell. A number under a diagonal is the product of the digits to be filled in under that particular cell. The ' 0 ' is not used and a digit can never occur more than once in the same number.


## POINTS 30

PUZZLE 3 - PARTITION MAKER (Cologne, Germany 1994)
Create areas of the same surface. Each area includes $\mathrm{a}+$ and $\mathrm{a}-$.


PUZZLE 4 - UP TO A POINT (Poiana Braşov, Romania 1995)
Place the numbers in the grid, horizontally or diagonally, one figure per square. The numbers do not touch, not even diagonally. In none of the rowns and columns any figure occurs more than once. The numbers outside the grid indicate the total number of figures in the corresponding row or column.


|  | 3 | 5 |  |  |
| :--- | :--- | :--- | :--- | :--- |
| 2 |  |  |  |  |
|  |  |  |  | 3 |
| 3 | 5 | 6 |  | 2 |
|  |  |  |  |  |
| 4 |  |  |  |  |
|  | 2 | 7 | 4 |  |
| 4 | 3 |  |  |  |
| 1 | 3 | 3 | 1 | 2 |



PUZZLE 5 - OUT OF AFRICA (Utrecht, The Netherlands 1996)
Travel from Casablanca to Cape Town and make sure you pass checkpoints 1 to 4 on the way. The checkpoints should be passed in order 1 to 4 and each exactly once. Roads and junctions can be used only once. What is the shortest route?


PUZZLE 6 - PUZZLERS (Koprivnica, Croatia 1997)
The list contains the names of puzzlers. Those names must be placed in the grid (horizontally or vertically). The grid contains exactly one character from each name, which is used for that name only. All names are connected to each other.

|  | $A$ |  |  |
| :--- | :--- | :--- | :--- |
|  |  |  | $A$ |
|  |  | $A$ |  |
|  |  |  |  |
|  | $E$ |  |  |


| $\square$ | BRAM |
| :--- | :--- |
| $\square$ | KAMER |
| $\square$ | PETR |
| $\square$ | ZACK |


| $Z$ | $A$ | $C$ | $K$ |
| :---: | :---: | :---: | :---: |
|  |  |  | $A$ |
| $B$ | $R$ | $A$ | $M$ |
|  |  |  | $E$ |
| $P$ | $E$ | $T$ | $R$ |

POINTS

PUZZLE 7 - HIROIMONO (Istanbul, Turkey 1998)
Starting with the stone numbered 1, you have to pick up all the stones and number them in order. Travel along the lines horizontally or vertically. You can only change directions (left or right, not backwards) when you pick up a stone. You must pick up the stones you come across. If you pass a place where you have picked up a stone before, you cannot change directions anymore.


## POINTS

5

PUZZLE 8 - CRACK IT ON (Budapest, Hungary 1999)
Put all the given 'words' into the two grids. Each area should contain exactly one letter.


| AEE | BRX | VIA |
| :--- | :--- | :--- |
| AOI | LIE | VLA |
| ATE | LNO | VON |
| BAI | NEE | XIO |
| BAL | OET |  |
| BAN | RIO |  |



| V |  | 0 | N |
| :---: | :---: | :---: | :---: |
| L | I | E |  |
| A |  |  | F |
|  |  | T |  |

## POINTS 25

PUZZLE 9 - COMMON TOUCH (Stamford, USA 2000)
In each of the puzzles, the four names in the YES group all share an unusual property, which none of the names in the NO group have. For each puzzle, pick one of the names from the answer list that shares the property in the YES group. Note that the answers have nothing to do with the people themselves, only with their names.

| YES | NO |
| :--- | :--- |
| BRIGITTE BARDOT | MARTIN WOUDA |
| MARILYN MONROE | KEES SCHAFT |
| JANIS JOPLIN | JAN ROELE |
| ROGER RABBIT | RICK KEIZER |

## ANSWER LIST

DONALD DUCK, HANS
EENDEBAK, INGRID
OOSTENDORP, CAROL JANSEN.
SOLUTION: DONALD DUCK

## POINTS

3x5

PUZZLE 10 - ANOTHER QUESTION MARK (Brno, Czech Republic 2001)


SOLUTION: 34

## PUZZLE 11 - BLACK-OUT MATH (Oulo, Finland 2002)

In each row, paint two cells black to make the equation correct. Standard algebra rules are followed, so multiplication (x) and division (:) must be calculated before addition (+) and substraction (-). Also, operations between brackets go first.

| 3 | $x$ | 5 | $=$ | 1 | $=$ | 1 | - | 5 | 3 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |$\quad$| 3 | $x$ | 5 | $=$ | 1 | $=$ | 1 | - | 5 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

PUZZLE 12 - STAR BATTLE (Papendal, The Netherlands 2003)


Place two stars, equal to the size of one square, in each column, each row and each black-edged part of the grid. The stars do not touch each other, not even diagonally.


## PUZZLE 1 - WELCOME

The grid is divided into different shapes. The numbers in the shapes indicate the number of coloured neighbouring shapes, including the shape with the number itself,


## POINTS

## PUZZLE 2 - PLACING FIGURES

Figures (1~9) must be placed in the grid. The figures to be filled in do not touch each other at any point, not even diagonally. The figures to the left of the diagram and above it indicate the number of figures in the corresponding row and column, the figures to the right and below indicate the sum of the figures in the corresponding row or column. Example with figures 1~5.



## PUZZLE 3 - CHECKERS

Twenty white and twenty black stones are placed on the checkerboard, all on white fields. The numbers outside the board reveal how many white (top number) and black (bottom number) stones are situated in the diagonal line. There are exactly two white and two black stones in every row and column; ten white fields remain empty. One white stone is already placed. Example with five black and five white stones.


## PUZZLE 4 - SPY HOLE

The floor has been divided into rooms, which are all interconnected by doors. Some doors are open, others are closed. In some rooms there is a figure which indicates how many other rooms can be looked into. Which doors are closed?


## PUZZLE 5 - MAGIC SQUARE

Place the digits 1~5 in each row, in each column, along the two diagonals and in the black edged shapes.


| 1 | 2 | 3 | 4 | 5 |
| :--- | :--- | :--- | :--- | :--- |
| 2 | 4 | 5 | 3 | 1 |
| 5 | 3 | 2 | 1 | 4 |
| 3 | 1 | 4 | 5 | 2 |
| 4 | 5 | 1 | 2 | 3 |

## PUZZLE 6 - MARBLES

Place a marble with the size of a square in each column and each row. All arrows point at exactly one marble, and each marble is pointed by an arrow once. The marbles do not touch each other, not even diagonally.


## PUZZLE 7 - PATHFINDER

A robot comes across piles of stones. When he crosses a pile, he takes one stone off that pile. The figures in the grid indicate the amount of stones. To determine his direction (horizontally or vertically) the robot looks around in all possible directions to see how large the neighbouring piles are. Depending on his programming he prefers certain piles more than others. The robot never moves to an empty square and if there are two (or more) piles with the same amount of stones with the highest priority he isn't able to choose and stucks. Can you program the robot in a way that he can find his way from the upper left to the square right down under? Give priorities to the amount of stones from the highest to the lowest.

| $*$ | 3 | 1 |
| :---: | :---: | :---: |
| 1 | 3 | 2 |
| 2 | 1 | 3 |


| $*$ | 3 | 1 |
| :---: | :---: | :---: |
| 1 | 3 | 2 |
| 2 | 1 | 3 |

## PUZZLE 8 - TRACKER

Find the closed path that exactly crosses all squares once. Always go straight ahead or follow the direction of the arrow in the square.


## PUZZLE 9 - MAGNETS

The grid is made up of magnetic and non-magnetic plates. Each magnetic plate has two halves: one positive ( + ) and one negative ( - ). Halves with the same symbol cannot be connected horizontally or vertically. The numbers outside the grid indicate the amount of magnetic halves in that particular row or column.


## POINTS



PUZZLE 11 - MAGIC SQUARE
Place the digits 1~9 in each row, in each column and on the two diagonals according to the given hints. Example with 1~5.


PUZZLE 12 - ALL ALONE
Black out some of the numbers in the grid so that each row and each column contains only different digits. Black squares must not touch horizontally or vertically, and splitting the grid with black squares is not allowed.

| 1 | 1 | 1 | 2 |
| :--- | :--- | :--- | :--- |
| 2 | 3 | 4 | 1 |
| 2 | 2 | 2 | 3 |
| 1 | 4 | 3 | 4 |


| 1 | 1 | 1 | 2 |
| :--- | :--- | :--- | :--- |
| 2 | 3 | 4 | 1 |
| 2 | 2 | 2 | 3 |
| 1 | 4 | 3 | 4 |

## PUZZLE 13 - TOURNAMENT

At school, eight teams play seven rounds of seven different games against seven different teams. All teams play exactly one game per round. For each sport there is only one field available, so there is a maximum of one particular game per round

|  | round 1 | round 2 | round 3 | round 4 | round 5 | round 6 | round 7 |  | round 1 | round 2 | round 3 | round 4 | round 5 | round 6 | round 7 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| basketball |  |  |  |  | 7 - | x |  | basketball | x | x | 1-6 | 8-3 | 7-5 | x | 4-2 |
| handball | 1- | 4-8 |  |  |  |  |  | handball | 1-5 | 4-8 | x | 7-6 | 2-3 | x | $\times$ |
| hockey | 8- | 6 - | 3- |  |  |  |  | hockey | 8-2 | 6-5 | 3-4 | x | x | x | 1-7 |
| baseball |  |  |  | 4- |  | 2-6 |  | baseball | x | 3-7 | 8-5 | 4-1 | x | 2-6 | x |
| korfball |  |  |  |  | 1-8 |  |  | korfball | 3-6 | $\times$ | 7-2 | x | 1-8 | 5-4 | $\times$ |
| soccer | 4-7 |  |  |  |  |  | 8- | soccer | 4-7 | x | $\times$ | 2-5 | x | 1-3 | 8-6 |
| volleyball |  |  | x |  |  |  | 3-5 | volleyball | $\times$ | 1-2 | x | x | 4-6 | 8-7 | 3-5 |

POINTS
30

## PUZZLE 14 - RADAR

All storms are rectangular or square and at least two squares wide and two squares long. The storms must not touch, not even diagonally. The numbers outside the grid indicate how many parts of the storms can be found in each row or column. The square with '-' remains empty.


20

## PUZZLE 15-ADDED VALUE

Each of the rectangles has a value 1~5. Each value occurs exactly once. When two or more rectangles overlap, their values are added. Some of these sums are in the grid. What are the values of the rectangles A~E?


## PUZZLE 16 - FOUR IN A ROW

A game of four in a row is played between two players. Four in a row means four connected X's or 0's horizontally, vertically or diagonally. Normally, when a player has 'four in a row', the game ends. Not this time: the players continue playing until the grid is full. That means that there must be 32 X s and 320 's in the grid. The player with ' X ' has scored 'four in a row' (and not more) exactly once, the player with ' 0 ' didn't succeed. The numbers left and above the grid indicate the number of $X$ 's in that row or column, the numbers right and under the grid indicate the number of series in that row or column. (For example, 3 can mean XXX00XXX).



## PUZZLE 17 - PAINT BY NUMBERS I

The numbers outside the grid indicate how many groups of black squares there are in the corresponding rows or columns and, respectively, how many consecutive black squares there are in each group.


## PUZZLE 18 - PAINT BY NUMBERS II

The numbers in the grid show how many of the nine squares -the one with the number plus the eight around it- should be coloured.

| 2 |  | 3 | 4 |  |
| :--- | :--- | :--- | :--- | :--- |
|  |  |  | 6 |  |
|  | 7 | 5 |  | 1 |
|  |  |  |  |  |
| 2 |  | 3 | 4 | 2 |


| 2 | $\cdot$ | 3 | 4 |  |
| :---: | :---: | :---: | :---: | :---: |
|  | $\cdot$ |  | 6 | $\cdot$ |
|  | 7 | 5 |  | 1 |
|  | $\cdot$ |  | $\cdot$ | $\cdot$ |
| 2 | $\cdot$ | 3 | 4 | 2 |



Place the numbers $1 \sim 12$ so that the sum of the numbers on a straight line comes to 21 . Example with the numbers $1 \sim 8$ and a sum of 10 .


PUZZLE 2 - ABCD
Divide the grid into four sections of four horizontally or vertically connected squares. Each section contains the letters A, B, C and D.

| A | B | B | C |
| :---: | :---: | :---: | :---: |
| A | C | D | A |
| B | D | D | C |
| D | C | A | B |


| A | B | B | C |
| :---: | :---: | :---: | :---: |
| A | C | D | A |
| B | D | D | C |
| D | C | A | B |

## PUZZLE 3 - CONNECTION

Place the numbers 1~13 in the empty squares. The numbers in two squares directly connected by a straight line must have a maximum difference of 3 . Example with 1~5 and a difference of 2.


## PUZZLE 4 - BALANCE

$A, B, C$ and $D$ represent positive integer values. What is the minimum value of $A, B, C$ and $D$ ?
$A A$ means $A+A$.
$A=1$
$A A=B$
$B=2$
$A B=C$

$$
C=3
$$

PUZZLE 5-1~49
Draw a line from the squares 1 to 49 in the correct order. That line goes horizontally or vertically and travels through all squares exactly once. The example is $1 \sim 25$.

|  |  | 5 |  | 1 |
| :--- | :--- | :--- | :--- | :--- |
|  | 25 |  |  |  |
| 21 |  |  |  |  |
|  |  |  | 13 |  |
|  |  |  |  |  |



PUZZLE 6 - HONEY MONEY
Six cells are empty, the other cells are filled with coins at values $4(1 x), 3(2 x), 2(3 x)$ and $1(4 x)$. The numbers indicate the sum of the values in that particular row or column. The example is without value 4.


## PUZZLE 7 - A PATH BETWEEN CELLS

Draw a single closed loop along the edges. The numbers in the cells indicate the number of the sides of that cell which are part of the route.


## PUZZLE 8-STARTING POINTS

Draw lines starting at each number in the grid. The numbers indicate the size of the line. The lines are drawn horizontally and/or vertically and can make turns of $90^{\circ}$, and the lines never cross or overlap.

|  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
|  | 4 |  |  |  |
| 2 |  |  |  |  |
|  |  |  |  |  |
| 6 | 4 |  | 4 |  |



PUZZLE 9-0~13
Enter the numbers $0 \sim 13$ in the empty circles. The numbers between circles indicate the sum or the difference between the two circles. 1~5 Example.


## PUZZLE 10 - MIRRORS

Place four diagonal two-faced mirrors (each the size of one square) in the grid and connect equal letters. Example with two mirrors.



This round consist of four puzzles. In order to solve puzzle \#2, you need to solve puzzle \#1 first. In order to solve puzzle \#3, you need to solve puzzle \#2 first, and in order to solve puzzle \#4, you need to solve puzzle \#3 first.

The five fastest puzzlers will receive a bonus of $25,20,15,10$, and 5 points respectively. If there are bonusses left after 30 minutes, you'll get five extra minutes, and so on.

## PUZZLE 1 - SYMBOLISM

Each letter represents a different digit 1~6.

| AB | $A=1$ |
| :---: | :--- |
| $B A$ | $B=2$ |
| $A C$ | $C=4$ |
| $D+$ | $D=5$ |

$\frac{D+}{D B}$

## PUZZLE 2 - ARROWS

Replace the letters in the grid with the values you found on the first puzzle. Use the grid on the right.Now insert arrows in the empty squares. All arrows point towards the grid, and the numbers in the grid indicate the number of arrows facing them.


PUZZLE 3 - LIGHTHOUSES
Count the number of arrows in the eight different directions and replace the arrows by the number of that arrow in puzzle 2 . Use the empty grid. There are 12 boats with the size of a square in the grid. The coloured squares with the numbers in it are lighthouses. The numbers indicate how many boats are illuminated from that lighthouse. Lighthouses only shine in horizontal or vertical direction and boats cannot touch each other and do not touch a lighthouse, not even diagonally.


## PUZZLE 4 - EVERY SECOND BREAKPOINT

First, enter circles in the squares where you found the boats in puzzle \#3. Note that it is possible that some circles are already entered. Note that in this example we don't use the top row and the left column. Now, draw a continuous loop in a way that every second corner point should be in the squares containing a circle. The loop doesn't cross itself and uses all squares exactly once. There's a corner point in every circle.


## PART ASSORTED PUZZLES - team Thursday 16th october, 15.30-16.15

The five fastest teams will receive a bonus of $100,80,60,40$, and 20 points respectively. The time will be stopped when at least 30 minutes have passed and at least 5 correct solutions have been handed in.

## PUZZLE 1 - TENTS

Locate the tents in the grid. Each tree is connected to exactly one tent, found in a horizontally or vertically adjacent square. Tents do not touch each other, not even diagonally. The numbers outside the grid reveal the total number of tents in the corresponding row or column.


PUZZLE 2 - SHIPS
Four countries ( $\mathrm{A}, \mathrm{B}, \mathrm{C}$ and D ) are with an entire fleet at sea. They have some ships in their own region, and some in the neutral zone, marked by the dotted lines. In the neutral zone is exactly one complete fleet. In squares crossed by the dotted line no ships are allowed. All ships are oriented either horizontally or vertically, and they do not touch each other, not even diagonally. The numbers outside the grid reveal the total number of the ship segments that appear in each respective row or column.



PUZZLE 3 - JAPANESE SUMS
Place figures 1~9 in the grid, only different figures in each row and column. The numbers outside the grid indicate the sum of the numbers filled in consecutive. When the numbers are for example 131019 (as in the top row) the different sums must be separated by at least one black square.


|  | 17 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 20 | 3 | 20 | 14 | 7 |
| 186 | 9 | 8 | 1 |  | 6 |
| 164 | 7 | 9 |  | 3 | 1 |
| 49 | 4 |  | 8 | 1 |  |
| 6 |  | 1 | 3 | 2 |  |
| 26 |  | 2 | 9 | 8 | 7 |

## PUZZLE 4 - CROSS SUMS BATTLESHIPS

The sum of the digits for each number to be filled in is equal to the number in the corresponding black cell. The ' 0 ' is not used and a digit can never occur more than once in the same number. Once you finish the cross sums part, there's a small extra puzzle in the center of the grid: a battleships-puzzle, with the standard battleship rules.


## PUZZLE 5 - ELASTIC BANDS

Six pegs are placed in a circle like the numbers of a clock. These pegs are connected to each other with elastic bands. When you move a peg, the bands that are connected to it stretch or shrink depending on where the other end is connected. Figure A shows the original positions of the pegs and their connections. After moving some or all pegs to a new position, the elastic band network looked like figure B. What are the positions of the letters $\mathrm{A} \sim \mathrm{F}$ ?


## PUZZLE 6 - JUST TWELVE STEPS

Start in the upper left square ('4'). Jump four squares in the direction you want; your first jump is East to the '1' or South to the '1'. Jump again; the number in the square indicates the distance of your jump. Your goal in this example is to travel exactly to the F in exactly five jumps.

| 4 | 1 | 1 | 1 | 3 |
| :--- | :--- | :--- | :--- | :--- |
| 1 | 3 | 1 | 1 | 3 |
| 1 | 1 | 1 | 1 | 1 |
| 1 | 1 | 2 | 1 | 3 |
| 1 | 1 | 4 | 2 | $F$ | Solution: EWSWS

Add three black squares anywhere in the grid. Then draw the longest path you can, according to the following rules.
Your path can start in any white square. Travel in any direction horizontally or vertically until you come to a black square or a wall. Then turn left or right and continue traveling, using the same rules. You may cross your path any time. Continue until you are forced to retrace part of your path (assume that the path connects the centers of adjacent squares).

Points: each single-crossed square 1 point, each double-crossed square 3 points, first and last square 3 points. The teamscore is the total of the four individual highscores minus 700 points.

Computergame: first three clicks: black squares; fourth click: starting square. The only thing you have to do is click in the direction you want to continue. You can restart as much as you want. Your highest score will remain visible on the screen.
Note that all puzzlers play with a righthanded mouse, and that you click on the left mousebutton.


3 extra squares

possible route


## PUZZLE 1 - DOMINO HUNT

We have placed a complete domino double 9 -set in the grid. However, the sides of the dominoes have been removed and the spots have been replaced by numbers. Can you draw the sides in the diagram so that it becomes clear exactly how the dominoes are positioned?

| 0 | 1 | 0 | 0 | 0-0 |  |  | 0 | 1 | 0 | 0 | POINTS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0 | 2 | 2 | 1 |  |  |  | 0 | 2 | 2 | 1 |  |
| 2 | 1 | 1 | 2 | 0-1 |  | 2-2 | 2 | 1 | 1 | 2 | 20 |

## PUZZLE 2 - DOMINO PUZZLE

We have placed a complete domino double 6 -set in the grid. In some squares the value of half a stone is indicated. Values of neighbouring half-stones are equal. How are the stones placed, and what is their value?

| 0 | 0 | 2 | 2 |
| :--- | :--- | :--- | :--- |
| 0 | 0 |  | 2 |
|  | 1 | 1 | 2 |
|  | 1 | 1 |  |
|  |  |  |  |

## PUZZLE 3 - SWEDISH DOMINO

We have placed a domino double 6 -set without the doubles in the grid. The sum of the digits of each number to be filled in is equal to the number in the black cell. A figure above a diagonal refers to the digits to be filled in to the right of that cell. A number beneath a diagonal is the sum of the digits to be filled in under that specific cell. A digit can never occur more than once in the same number. How are the dominoes positioned, and what is their value?


## PUZZLE 4 - STRANGE DOMINO

The domino-set as shown is placed in the grid. The sides of the dominoes have been removed. Can you draw the sides in the diagram so that it becomes clear exactly how the dominoes are positioned?


## PUZZLE 5 - DOMINO LOOP

We have placed a complete domino double 6 -set in the grid. The dominoes are positioned in a continuous, single loop, and that loop never touches itself, not even diagonally. The numbers left and above the grid indicate the number of different stone-halves in that row or column, the numbers right and beneath the grid indicate the total value of the stones in that row or column. One domino has already been placed. Neighbouring stone-halves have the same value.



## PUZZLE 6 - DOUBLE DOMINO

We have placed two domino sets without the doubles in the grid. However, the sides of the dominoes have been removed and the spots have been replaced by numbers. Can you draw the sides in the diagram so that it becomes clear exactly how the dominoes are positioned?

| 0 | 1 | 0 | 2 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 1 | 1 | 1 | 2 |
| 2 | 0 | 0 | 2 | | $0-1$ |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| $0-2$ | $1-2$ | $0-1$ |
| $0-2$ | $1-2$ |  |$\quad$| 0 | 1 | 0 | 2 |
| :--- | :--- | :--- | :--- |
| 1 | 1 | 1 | 2 |
| 2 | 0 | 0 | 2 |

PUZZLE 1 - FROM H TO H
Travel from A to A and continue your journey along the lines. You pass all letters exactly once before you return in A .


| $A$ | $B$ |  |  |  | $A$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $A$ | $B$ | $C$ | $E$ | $D$ | $A$ |

## PUZZLE 2 - SKYSCRAPERS

The grid symbolises a group of skyscrapers. Each row and column contains skyscrapers of different heights (1~6). The numbers outside the grid indicate how many skyscrapers are visible from that direction.


|  | 2 | 2 | 1 |  |
| :---: | :---: | :---: | :---: | :---: |
| 3 | 1 | 2 | 3 | 1 |
| 1 | 3 | 1 | 2 | 2 |
| 2 | 2 | 3 | 1 |  |



## PUZZLE 3 - SUMMED SKYSCRAPERS

The grid symbolises a group of skyscrapers. Each row and column contains skyscrapers of different heights (1~6). The numbers outside the grid indicate the sum of the heights visible.


\[

\]



## PUZZLE 4 - HIDDEN COUNTRIES

The letters of 21 countries are hidden in the grid, exactly one name in each row and in each column. Write down all the hidden countries in the empty grids beside and below the approppriate row or column. Each letter is part of one of the countries and is used exactly once.

POINTS
10

PUZZLE 5 - TREES TENTS AND DOGS
There are sixteen series of a tent $(\overline{\mathbf{S}})$, a tree $(\boldsymbol{(})$ and a dog(©) in the grid. The series of three symbols can lie horizontally, vertically or 'around the corner', but the tree is always in the middle. Same symbols do not touch each other, not even diagonally. The numbers outside the grid indicate the number of trees, tents and dogs in the corresponding row or column.

|  |  |  |  | 1 | 1 | 1 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  | 1 | 1 | 1 |
|  |  |  |  | 1 | 1 | 0 |
|  |  |  |  | 0 | 0 | 1 |
| 0 | 2 | 0 | 1 | $\mathbf{\Lambda}$ |  |  |
| 2 | 0 | 1 | 0 |  |  |  |
| 2 | 0 | 1 | 0 |  |  | $\odot$ |


| ¢ | $\wedge$ | () |  | 1 | 1 | 1 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| () |  | - | A | 1 | 1 | 1 |
| ¢ | $\mathbb{1}$ |  |  | 1 | 1 | 0 |
| - |  |  |  | 0 | 0 | 1 |
| 0 | 2 | 0 | 1 | ¢ |  |  |
| 2 | 0 | 1 | 0 |  | ¢ |  |
| 2 | 0 | 1 | 0 |  |  | © |

## POINTS

## PUZZLE 6 - PILLBOX

Twelve pills with a size of three horizontally or vertically connected squares are hidden in the grid. The pills do not touch each other, not even diagonally. The pills have all different values from $1 \sim 10$; two pills have no value (' 0 '). The numbers above and left indicate the number of pills in that row or column, the numbers right and below indicate the sum of the values of the pills in that row or column. Example with values $0 \sim 3$.



POINTS
20

## PUZZLE 7 - SNAKE PIT

Two snakes, each consisting of six horizontally or vertically connected squares including head and tail, are hidden in the grid. The snakes do not touch themselves or others, not even diagonally. The figures in the squares indicate how many of the surrounding squares are occupied by snakes. The snakes cannot occupy numbered squares. The blue squares represent the heads and tails of all snakes.


## POINTS 30

## PUZZLE 8 - TAKE CIRCLES

Find a path from the top left corner (A) to the bottom right (B) so that you pass through every circle once. The path may not touch itself, not even diagonally.


PUZZLE 9 - RECTANGLES
How many rectangles?


## 4 RECTANGLES

POINTS
15

## PUZZLE 10 - MAGIC SQUARE

Place the digits from 1~4 into the squares (one per square) so that each digit appears exactly once in any row and column. Additionally, the sum of the digits placed in each region must equal the given value.



## PUZZLE 11 - SOME CITIES

Place all cities in the grid, exactly one per cell. Same letters never occur in horizontal or vertical neighbouring cells.


## PUZZLE 12 - CIRCULAR REASONING

Divide the grid into L-shaped pieces of the same size so that each piece contains exactly two blue circles.


PUZZLE 13 - HEX DOMINOES
We have placed a complete domino double 6-set in the grid. However, the sides of the dominoes have been removed and the spots have been replaced by numbers. Can you draw the sides in the diagram so that it becomes clear exactly how the dominoes are positioned?


PUZZLE 14 - CONNECTING DOTS
Connect dots and place all shapes in the grid. The numbers in squares formed by the four dots indicate how many sides you should draw The shapes can be turned and mirrored, but they do not touch each other, not even diagonally.
$\begin{array}{llll}\bullet & \bullet & \bullet \\ - & \bullet & \bullet \\ - & \bullet\end{array}$


PUZZLE 15 - ALONG THE LINES
From each numbered square must be drawn one or more straight lines in horizontal and/or vertical direction, which altogether pass through as many squares as indicated by the corresponding number. The numbered square itself is not counted. The lines do not intersect or overlap.

|  | 2 |  |  |
| :--- | :--- | :--- | :--- |
|  |  | 1 |  |
|  | 4 |  |  |
| 3 |  | 1 |  |


|  | 2 |  |  |
| :--- | :--- | :--- | :--- |
|  | 1 | 1 | - |
|  | 4 |  |  |
| 3 | 1 | 1 |  |

## PUZZLE 16 - ARROWS AND DIAMONDS

Diamonds with the size of a square are hidden in the grid. The numbers outside the grid indicate the number of diamonds in that row or column. The arrows in the grid point at exactly one diamond. Diamonds do not touch (not even diagonally) and there are no diamonds in squares with arrows.


## POINTS <br> 25

## PUZZLE 17 - PLAYING BOARD

On the board of a new game are ten pawns in total, each with a different colour. The pawns are at the positions A to J. The list below indicates the shortest distance between pawns of different colours.


| blue - green | 1 | Solution: |
| :--- | :--- | :--- |
| blue - white | 3 | $A=$ BLUE |
|  |  | $B=$ GREEN |
|  |  | $C=$ WHITE |

POINTS
10

## PUZZLE 18 - PAINT BY NUMBERS

All numbers, except 1's, appear in the grid as same-number pairs. Same-number pairs must be interconnected to form paths. Path lengths, including end-squares, equal the value of the numbers, and squares containing ' 1 ' represent paths that are 1 -square long. Paths may follow any horizontal or vertical direction and are not allowed to cross other paths.

|  |  |  | 1 |
| :--- | :--- | :--- | :--- |
| 3 |  | 3 | 5 |
| 5 |  |  |  |
|  |  |  |  |



## PUZZLE 1 - VALUE BATTLESHIPS

Locate the position of the fleet in the grid. The ships do not touch each other, not even diagonally. The value of the squares occupied by a ship is equal to the value of that ship.

| 5 | 1 | 1 | 1 | 1 |
| :--- | :--- | :--- | :--- | :--- |
| 1 | 1 | 1 | 4 | 2 |
| 2 | 2 | 2 | 2 | 1 |
| 2 | 2 | 5 | 3 | 1 |
| 5 | 3 | 1 | 2 | 1 |$\quad 6 \quad 6 \quad 6 \quad 6 \quad$| 5 | 1 | 1 | 1 | 1 |
| :---: | :--- | :--- | :--- | :--- |
| 1 | 1 | 1 | 4 | 2 |
| 2 | 2 | 2 | 2 | 1 |
| 2 | 2 | 5 | 3 | 1 |
| 5 | 3 | 1 | 2 | 1 |

## PUZZLE 2 - EASY AS BATTLESHIPS

Locate the position of the fleet in the grid. The ships do not touch each other, not even diagonally. The numbers outside the grid indicate the size of the first ship encountered from that direction.


PUZZLE 3 - MINESWEEPER BATTLESHIPS
Locate the position of the fleet in the grid. The ships do not touch each other, not even diagonally. Each number in the grid equals the total number of ship segments in the neighboring squares: horizontally, vertically and diagonally. Cells with numbers cannot contain ships.


PUZZLE 4 - MOVING BATTLESHIPS
Locate the position of the fleet in both grids. The ships do not touch each other, not even diagonally. The numbers outside the grids indicate the number of ship segments in the corresponding row or column. The fleet in grid $A$ is the same as the fleet in grid $B$. However, all ships from grid A have moved 1, 2 or 3 positions forwards or backwards. The four submarines can move in all directions.


POINTS

PUZZLE 5-ABC BATTLESHIPS
Locate the position of the fleet in the grid. The ships do not touch each other, not even diagonally. The numbers outside the grid indicate the number of ship segments in that row or column. Every single letter of the alphabet is occupied exactly once.


| 8 | 7 | 1 | 1 | 2 |
| :---: | :---: | :---: | :---: | :---: |
| 2 | 1 | 7 | 7 | 8 |
| 5 | 3 | 8 | 6 | 7 |
| 5 | 4 | 4 | 6 | 2 |
| 5 | 5 | 3 | 9 | 1 |
| 1 | 4 | 0 | 3 |  |

## POINTS

## PUZZLE 6 - WEIGHTED BATTLESHIPS

Locate the position of the fleet in the grid. The ships do not touch each other, not even diagonally. The ship segments are weighted differently, as shown in the fleet. The numbers outside the grid reveal the total weight of all ship segments in that row or column.


## PUZZLE 1-4 - MEANDER

Locate the route, starting in the upper left square and finishing right down under. The route meanders horizontally or vertically, and the numbers outside the grid indicate the total of occupied squares in that row or column. A black square means that the route cannot cross that square.

| PUZZLE | POINTS |
| :---: | ---: |
| 1 | 10 |
| 2 | 10 |
| 3 | 20 |
| 4 | 20 |

The five fastest puzzlers will receive a bonus of $25,20,15,10$, and 5 points respectively.


CITY MAP
The grid presents a plot of land which must be completely redeveloped. There are four types of development (street, house, green strip and shop) and every one of them must be considered. All of the boxes must be used for development. All of the streets must be built consecutively. Every shop and house must be connected either horizontally or vertically with a bordering street in order to achieve suitable accessibility. Every house must be either horizontally or vertically connected to a green strip in order to meet the necessary standards of living. Green strips and shops can be changed around. Charges apply to the building of streets ( 1 point per section of street); green strips are free of charge but equally do not deliver any points, and the other two forms of construction earn 2 points (shop) or 3 points (house). Try and collect as many points as you can using the development program.

Score: number of points $\times 5$
street (-1 point)
green strip (0 points)
house (+3 points)



# THE WEAKEST LINK - team 

## Friday 17th october, 16.30

PUZZLE
1 The weakest link

After completing the puzzle correctly you will receive your part of the teampuzzle.

## PUZZLE <br> Campsite <br> POINTS

The five fastest teams will receive a bonus of $100,80,60,40$, and 20 points respectivily. The time will be stopped when at least 30 minutes have passed and at least 5 correct solutions have been handed in.

## PUZZLE 1 - THE WEAKEST LINK

The figures outside the grid indicate the number of coloured squares in that row or column. The squares in black edged shapes must either all be coloured or all remain empty.


## PUZZLE 2 - CAMPSITE

There are four trees and four tents at the campsite. Every tent stands horizontally or vertically next to a tree. The tents cannot touch eachother, not even diagonally, and the same goes for the trees. The numbers outside the grid indicate the number of tents and trees in that row or column


The five fastest puzzlers will receive a bonus of $25,20,15,10$ and 5 points.

PUZZLE 1 - ABC
The letters $A$ to $Z$ all have different values 1~26. De numbers beside the names are equal to the sum of the value of the letters in that name.
THIS (18
IS (9)

A
TEST
TEST

| $A$ | $E$ | $H$ | $I$ | $S$ | $T$ |
| :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |  |


| $A$ | $E$ | $H$ | $I$ | $S$ | $T$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 4 | 5 | 6 |

## BLOCKS - team

EACH CORRECT

Time bonus for the five fastest teams: 100, 80, 60, 40 and 20 points.

[^0]This year we introduce a new format for the finals: a knock-out system. The best eight individual puzzlers will participate in the quarter finals. The number 1 plays against number 8 , number 2 against 7 , number 3 against 6 and number 4 against 5 . The complete schedule is this:


All quarter finalists have to solve three puzzles; the puzzler who claims to be ready wins, unless he (or she) has made a mistake; in that case the opponent is the winner. We will play two quarter finals at the same time, starting 1-8 and $4-5$. That means that the four other quarter finalists will be kept apart during the first quarter final. The four losing puzzlers in the quarter final will be the numbers $5 \sim 8$ from the individual championships, according to their initial ranking (for instance, if the numbers 2 and 3 lose in the quarter final (and number 1 wins), their final ranking will be 5 and 6 ).

After the quarter finals we directly play the semi finals: three puzzles, with the same rules as stated above After the semi finals we directly play the final: three puzzles, with the same rules as stated above.

Note that the finalists won't wear headphones. We trust the other puzzlers and audience not to yell, scream, or even whisper hints or solutions to the finalists.

## PUZZLE 1 - MASTER MIND

Try to find out the correct position of the digits. The number of black dots show the number of digits being at the correct position and the number of white dots show how many other digits are correct, but in the wrong position. A digit (1~9) can occur more than once.
931 ○ O
Solution: 123
21200
327


PUZZLE 2 - ARROWS
Insert arrows in the empty squares. All arrows point towards the grid, and the numbers in the grid indicate the number of arrows facing them.


## PUZZLE 3 - JUST SOME NUMBERS

Enter all numbers into the grid from left to right or from top to bottom.


492
528
613

## FINALS - semi final

Saturday 18th october, 11.00

## PUZZLE 1 - MAGIC SQUARE

Place the digits 1~5 in each row, in each column and in the black edged shapes.


| 5 | 4 | 3 | 2 | 1 |
| :--- | :--- | :--- | :--- | :--- |
| 4 | 1 | 2 | 5 | 3 |
| 3 | 5 | 4 | 1 | 2 |
| 1 | 2 | 5 | 3 | 4 |
| 2 | 3 | 1 | 4 | 5 |

## PUZZLE 2 - SPOKES

Draw spokes connecting neighbouring hubs, horizontally, vertically, and diagonally. The number in each hub indicates the number of spokes that are connected to that hub. All hubs are interconnected, and spokes cannot intersect.



PUZZLE 3 - PENTA
Place the different shapes in the grid in such a way that each figure contains exactly one star. The figures can be turned and mirrored.


## PUZZLE 1 - CROSS SUMS INCLUDING '0'

The sum of the digits of each number to be filled in is equal to the number in the corresponding black cell. The ' 0 ' is used and a digit can never occur more than once in the same number.


PUZZLE 2 - EASY AS ABCD
Enter the letters A, B, C and D, each letter once, in all of the rows and columns. Twenty-one cells should remain empty. The letters outside the diagram are the letters you come across first from that direction. Example with A, B, C and four empty cells.


| C | A | - | $B$ |
| :---: | :---: | :---: | :---: |
| $B$ | $C$ | $A$ | - |
| $A$ | - | $B$ | $C$ |
|  | $C$ |  |  |
| - | $B$ | $C$ | $A$ |

PUZZLE 3 - STAR BATTLE
Place two stars, the size of one square, in each column, each row and each black-edged part of the grid. The stars do not touch each other, not even diagonally.


## SanomaUitgevers

World Puzzle Federation



## Concepten

Organisatie \& Regie

## PlantijnCasparie $\rightarrow$ Almere

யயய. ᄃロחceptistech.com


[^0]:    All teams receive 40 blocks. Form five cubes, eight blocks each ( $2 \times 2 \times 2$ ) according the following rules.
    Cube \#1 is the coloured one: one colour on each side.
    Cube \#2 is the one with the symbols: a symmetrical symbol on each side.
    Cube \#3 is the one with the loop: make sure that all parts are on the outside and that the continuous loop doesn't touch itself, not even diagonally.
    Cube \#4 is the one with the numbers: make sure the sum on each side of the cube is 25.
    Cube \#5 is the battleships cube: make sure the ships do not touch and all given (parts of) ships are used on the outside. The complete fleet: $1 \times 4,2 \times 3,4 \times 2$ and $4 \times 1$.

