## Pandora 2022 Puzzle Manual

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## Day 1

## Non-zero Texting

## Made by: Mila

Answer: Carillon
Solution: These are all pokemon. You have to take the pokedex number of the pokemon (eg upper left is Zacian -> pokedex number \#888). When you have found all these numbers, you see that you can input these to form letters (think of those old nokia phones). The title hints that you do have to ignore the zeroes. If you ignore all the zeroes and then change all the numbers to letters, then you get the following sentence: visit number four. Building 4 is Carillon.

- Zacian \#888 -> V
- Gloom \#44 -> I
- Dusknoir \#477 -> S
- Minior \#774 -> I
- Lucario \#448 -> T
- Machop \#66 -> N
- Grimer \#88 -> U
- Golett \#622 -> M
- Lunatone \#337->B
- Silvally \#773 -> E
- Seviper \#336 -> R
- Pyroar \#668 -> F
- Wartortle \#8 -> O
- Ponyta \#77 -> U
- Squirtle \#7 -> R


## RGB

Made by: Mila
Answer: Carre
Solution: What you see is a sudoku which has colors instead of numbers. You have to use a color picker to get the exact hex code. The $\mathrm{r}, \mathrm{g}$, and b represent the rgb values of the colors.
You have to take the $r, g$, or $b$ values depending on which letter is in the box.

- $9 \rightarrow \# d 70608$ (red)
- $8 \rightarrow$ \#340AC8 (dark blue)
- $7 \rightarrow \# 06 \mathrm{D} 74 \mathrm{~B}$ (neon green)
- $6 \rightarrow \# 005564$ (gray)
- $5 \rightarrow$ \#C81755 (pink)
- $4 \rightarrow$ \#d7d306 (yellow)
- $3 \rightarrow$ \#ADD74B (light green)
- $2 \rightarrow$ \#d76e06 (orange)
- $1 \rightarrow \# 6417 \mathrm{C} 8$ (purple)

This gives the following coordinate: $52.2385,6.8575$-> Carre

## Journey through the Netherlands

Made by: Jochem
Answer: Drienerburght
Solution: The story describes a train journey through the Netherlands. You have to map all the places that are mentioned in the story. If you have drawn this out, then you see that you have drawn the number 44.

## O Say Can You See

## Made by: Arda

Answer: Garage
Solution: You see a lot of different functions that all do different things with words.

- $\quad a(a b c d e)=a c e$
- $\quad b(a b c)=c b a$
- $\quad c(a b, 2)=c d$ (caesar shift)
- d(see) = sea (homophone -> words that are pronounced the same way but have different meanings)
- $e(x, y)=y x$

The title is the first words of the national anthem of the USA. Every function has as an answer a state of the USA. Thus, you know you did it correctly if the result is a US state. To get to the solution you first have to solve the functions that hold the greek letters.

- $\quad \pi=$ Alaska
- $\lambda=$ Ohio
- $\psi=$ Texas
- $\Omega=$ Utah

Then, if you input these, you get the following solution.
Abbr of Georgia. The abbreviation of Georgia is GA (Georgia is also a US state).

## Unseen Language

## Made By: Arda

Answer: Zwembad
Solution: You have to find the authentic documents. These are all listed below. Unseen Language refers to braille language.


You can take the authentic documents in the left column together. Same for the authentic documents on the right column.


## Flag Signals

## Made By: Mila

Answer: Citadel
Solution: You have to follow all of the lines that start from the question marks. The y-axis ranges from 0-23 (hours in a day). The $x$-axis ranges from 0-59 (minutes in an hour). The title hints that you have to use the semaphore flag signal system. By using the $x$ - and $y$-axis you get a time and this corresponds to a semaphore flag position, which corresponds to a letter. All these letters result in citadel.

## Up for a round of Gwent?

## Made By: Arda

Answer: Verreveld
Solution: You have to play a game called Gwent (Witcher 3 version). If you play the cards according to the results, then the opponent will have 52 points and you will have 68 points.
These are, of course, campus coordinates. The exact coordinates are: 52.24785, 6.8505455.
These result in the forest next to the Verreveld.

## Chinese Zodiac

## Made By: Arda

Answer: TechMed Centre (Technohal)
Solution: If you look up the names, you'll see that they are all scientific names of certain animals. The title hints that you have to look at the Chinese zodiacs. These consist of an element + the name of an animal. These combinations are all specific to certain years. These years all correspond to years in which a Pandora was held. If you look up the theme of these Pandora's in the archive on the website and then take the first letter, then you get THE TMC.

- Fire Monkey -> 2016 The Alliance
- Wood Horse -> 2014 Heisteria
- Wood Rooster -> 2005 Epimeta
- Fire Monkey -> 2016 The Alliance
- Water Horse -> 2002 MIB
- Water Dragon -> 2012 CIA: Operation Pandora


## Day 2

## Corona Cabinet

Made By: David
Answer: Waaier
Solution: If you scan the qr codes, you'll see a date and a letter. The date is the birth date of a minister from cabinet Rutte III. The letter is either the first letter of their first name or last name. If you find all of the ministers and take their missing letter, then you get the waaier.

- T Tom de Bruijn

08-10-1948

- H Henk Kamp

23-07-1952

- E Eric Wiebes

12-03-1963

- W Wopke Hoekstra

30-09-1975

- A Ank Bijleveld
- A Tamara van Ark
- I Ingrid van Engelshoven
- E Eric Wiebes
- R Mark Rutte

17-03-1962
11-08-1974
12-07-1966
12-03-1963
14-02-1967

| - B | 08 OKT |
| :--- | :--- |
| -K | 23 JUL |
| W | 12 MAR |

_ H 30 SEP
B $\quad 17$ MAR
T_ 11 AUG
_E 12 JUL
W 12 MAR
M _ 14 FEB

## Intersecting Logos

Made By: Matthias
Answer: Meander
Solution: The logos are intersected with each other. This hints to the fact that you have to take the letters of both logo names that intersect (the letters have to be on the same position as well). This results in meander.

- Nasa and Puma = a
- Ravensburger and Reddit = r
- Douwe Egberts and Boursin = ou
- NVIDEA and Nikon = n
- Discord and Dreamworks = d
- Meta and McDonalds = m
- Boeing and Shell = e
- Amazon and Adidas =a
- Wendys and Honda = nd
- Inter-Actief and Fedex = e
- Grolsch and Pringles = r


## Adjacent Borders

## Made By: Arda

Answer: Island on campuslaan
Solution: All of the rectangles represent countries. The colored circles inside the rectangles represent the flag colors of those countries. The lines between the colors indicate that those colors are adjacent to each other. The number above the line indicates the amount of times those colors are adjacent.


Van linksonder naar rechtsboven: Azerbijan, Georgia, Turkey, Greece, and North Macedonia

cbde( $\left.\mathrm{g}^{*} 3\right)(\mathrm{a}-1) \mathrm{fh}=52.246791$
$(\mathrm{e}+2) \mathrm{a}(\mathrm{b} * 2)(\mathrm{c}+1) \mathrm{de}(\mathrm{g}+1)=6.846243$

## Music Box Medley

Made By: Matthias
Answer: Carre
Solution: What you see are music notes. If you play the notes yourself or input them on a music website, you'll notice that the music sounds familiar to you. They are all music from popular video games. The games are: the legend of Zelda, new super mario bros, and tetris. Filling these is, gives TO CARRE

## Exploration

Made By: Maarten
Answer: The Farm (this is also the Faculty Club)
Solution: You have to look up the coordinates on google maps and then go into street view. You'll see that every coordinate has animals. When you take the first names of all the animals, you get The Farm.

- -0.9141461 -89.4380941 tortoise/turtle
- 55.724534212 .5644666 horse
- 0.571104637 .5639002 elephant
- 51.91217834 .4363942 fox
- -19.277735, -68.6628424 alpaca
- 54.1036847 -1.4668956 ram
- 12.259007979 .406294 monkey


## My Favourite Songs

Made By: Maarten
Answer: The Painter -> Mondriaan
Solution: You have to look up the names of all the albums that are on the puzzle. Then, you have to take the first letter of the first song on the first album. Then take the first letter of the second song of the second album etc. This results in The Painter.

- Born to Run -> Thunder Road
- Songs In The Key Of Life -> Have A Talk With God
- Hunky Dory -> Eight Line Poem
- Departure -> People and Places
- The Wall -> Another Brick in the Wall, Part 2
- Glass Houses -> I don't want to be Alone
- Toys in the Attic -> No More, No More
- Remain in Light -> The Overload
- Abraxas -> El Nicoya
- Led Zeppelin IV (deluxe edition) -> Rock and Roll


## Ash describes the Alien

Made By: Arda

Answer: Beachfields at Witbreuksweg
Solution: When you press the letters, you hear a voice talking. This voice is Ash from the movie Alien. You can look up the scene (it's the title). You have to put the letters on the sliding puzzle in the order of the scene. If you do that, then a picture of the beachfields at witbreuksweg will pop up.

## Human Chromosome

Made By: Arda
Answer: Carre
Solution: You see two DNA strands. Every color represents a DNA base. You can convert these DNA strands into mRNA strands. This becomes:
AUG AAU AUC AGC UGU CAC GCG CGA AUU AAC UAG AUG AAG GCA GAU AAA UGA AUG GAC UAU AUG GAG UGC UUG AUA AAC UAAAUG AAU GCC CCC GGA UGA AUG GUG GAA AGG UCG AUA UGU GCU AAC UAA
mRNA codon groups of 3 all correspond to an amino acid. These amino acids are:
START Asn Ile Ser Cys His Ala Arg Ile Asn STOP START Asn Ala Asp Lys STOP START Asp Tyr Met Glu Cys Leu Ile Asn STOP START Asn Ala Pro Gly STOP START Val Glu Arg Ser Ile Cys Ala Asn STOP

Every amino acid also has a single letter abbreviation. These are:
START NISCHARIN STOP START NADK STOP START DYMECLIN STOP START NAPG STOP START VERSICAN STOP

These are all genes. Genes are present on chromosomes. You have to look up on which human chromosome each gene is. Then you convert these numbers into letters.

- Nischarin: 3 -> C
- Nadk: 1 -> A
- Dymeclin: 18 -> R
- Napg: 18 -> R
- Versican: 5 -> E


## Day 3

## Let's explore the streets!

## Made By: Mila

Answer: Sportscentre
Solution: You have to start at the River Club and go into street view. You have to follow the directions indicated in the puzzle. You start at 52nd street so the end result is a coordinate.
Every street you pass is part of the coordinate. The end result is: $52.24374,6.85039$

## Infected

## Made By: Arda

Answer: Maarten on Sunday (which resulted in Zilverling)
Solution: The answer to this puzzle had to be given on the website by the teams.

- Statement 12 is false because then statement 9 causes a contradiction because Mila has an a in her name
- Statement 3 is false because then statement 9 causes a contradiction because Arda and David both have an a in their name
- Statement 6 is false because then it would have to be Arda, but that contradicts statement 3 because Arda does not have an $m$ in his name
- Thus, statement 9 is true
- This leaves only Maarten and Matthias
- Statements 7 and 11 are also false because of the explanation about binary
- Thus, only Monday, Friday, Saturday, and Sunday are left
- Statements 5 \& 8 cannot be true at the same time because Halloween 2020 was on a Saturday
- Thus, statements 4 \& 10 are true. This means it cannot be Matthias and it has to be Maarten. These statements only leave Saturday and Sunday as viable options.
- Statement 2 can only be false because of all of the previous statements. Thus, it has to be Sunday
- Thus, Maarten was infected on Sunday


## Movie Movie Game

Made By: Matthias
Answer: Paviljoen
Solution: Movie Movie game is a popular game where you can merge 2 different movie names into one. For this puzzle, this is what you have to do. Look up the movies and then merge the titles.

- Bro's before hoes and Home Alone -> Bro's before Home alone
- Baby Driver and Venom: Let there be Carnage -> Baby DriVenom: Let There be Carnage
- The Grand Budapest hotel and Hot Tub Time Machine -> The Grand Budapest Hot Tub Time Machine
- Django Unchained and Child's Play -> Django UnChild's Play

Taking all the letters in the order of the numbered boxes gives: solution is paviljoen

## Elementary

Made By: Arda
Answer: Hangar
Solution: The figures are part of the dancing men cipher. This cipher was created for a Sherlock Holmes story. Solving the cipher gives:
Go to
sherlockHholmDesSstoriesSpdfSa4S1HsidedSdancDpdf
H is hyphen
$S$ is slash
$D$ is dot
This gives the following URL: sherlock-holm.es/stories/pdf/a4/1-sided/danc.pdf. This is the actual dancing men story written by Sir Arthur Conan Doyle. The numbers in the bottom right have to be followed as page number:line:word.

- I - > 1:10:1
- AM -> 2:63:11
- SURE -> 2:68:8
- IT -> 3:20:4
- IS -> 4:28:5
- AT -> 7:35:6
- H -> 9:12:8
- A -> 9:51:8


## Universe

Made By: Maarten
Answer: Hangar
Solution: This is a logic puzzle where you have to find all of the names of the different planets.


The green on some planets represents cities. Taking the last letter of these planets results in NHRGAA. Reshuffled this makes Hangar.

## Haiku

## Made By: Arda

Answer: Citadel
Solution: These are all haikus. A haiku consists of three lines, where the first line contains 5 syllables, the second contains 7 , and the third line contains 5 . The first haiku tells you not to move the middle lines. This is because the haikus are in the wrong order and you have to rearrange them.

- Go you, you found it!

Do not move the middle lines
Good luck with puzzling

- Look to the grey view

A sun stopped at noonday's end
Nightfall is coming

- We like ciders much

The committee could use drinks
Long nights await us

- The great Vesta smiles

Roman Goddess of the hearth
May her fire burn

- I saw this model

She was reading a novel
Wait! Haiku don't rhyme

- Kiddos come flocking

As the summer approaches
They must take the leap

- Sand is everywhere

In the big open desert
You could use camels

- Waves rush towards you

Rushing next come the deep waves

The waves stop coming

- Enjoying your book

Page after page you read it
What a weird plot twist

- Magma rises fast

The volcano is bursting
The mountain erupts

- Snowflakes gently fall

Yesterday's snow is still there
White winter beauty

- The Flash cannot fly

Lightning quick speed he gets there
Super fast hero

- Cliffhangers galore

Watching your favourite show
You look at your screen

- Your ship is sailing

As pirates arrive near you
They look for riches

- The ball at his feet

Breaking through he scores the goal
He runs to his fans

- Vast, black, velvet space

Sprinkled with beautiful stars
Glimmers to the end

- Swallows congregate

On electric wires ready
To migrate down south
The next step is taking the first syllable of the first haiku, the second syllable of the second haiku etc.

This creates another haiku.

- Go to citadel

As the next page is still there
You look to the south

## Polar Opposites

Made By: Arda
Answer: Boerderij Bosch
Solution: You have to play the game wakken. The pinguin indicates that you have to count all of the points that are missing from the dice. If there is a six on the die, then you are missing the middle point. If you had a 4 , then you would be missing 3 points (because in total there are 7 points). The ice bear indicates all of the points that are around the middle point. You only count these if there actually is a middle point on the die. A die with a 2 on it has 0 because there are no middle points, but a die with 3 on it has 2 points around the middle point so it is 2 . A wak (hole) indicates that you have to count how many dice have a middle point.


You have to take the antipode of this coordinate (because the puzzle is about opposites). This results in a coordinate that is at Boerderij Bosch.

## The Tower of Hanoi

Made By: Arda
Answer: BMC
Solution: Finding the words of the first set in the word search leaves a few letters unused.
These spell out: use anagram for other set. You have to use anagrams of the first set to find the words of the second set. Then you have to use the tower of hanoi principle to create the second word from the first word. The trick is that letters that come first in the alphabet cannot be under letters that come later in the alphabet.

- Rowdy -> Wordy $=12$ steps $12=\mathrm{L}$
- Clean -> Lance $=15$ steps $15=0$
- Bagel -> Gable $=15$ steps $15=0$
- Baker -> Brake = 11 steps 11 =K
- Emit -> Mite $=1$ step $1=\mathrm{A}$
- Grape -> Pager $=20$ steps $20=\mathrm{T}$
- Now -> Won $=2$ steps $2=B$
- Taser -> Tears $=13$ steps $13=\mathrm{M}$
- Braid -> Rabid $=3$ steps 3 = C


## Day 4

## Crossing Lines

Made By: David
Answer: Bastille
Solution: You have to find the pictures on google maps. Then if you cross lines between these points you will end up with an intersection at Bastille.

- 52.2372303,6.863558 upper left
- 52.2445598,6.849901 upper right
- 52.2445132,6.8559323 bottom left
- $52.2408945,6.8449029$ bottom right


## Censorship Sucks

## Made By: Arda

Answer: Technohal
Solution: The audio file is a song called above the clouds, by Gang Starr. The beeps are morse code. Checking all the morse code gives CHECK LYRICS. You have to find the lyrics and look up which words are bleeped out. These words result in the following sentence: it is somewhere in the as hidden with the c-cypher seven. This means that you have to take a caesar cipher with shift 7 on the word as. This results in $\mathrm{tl}->$ technohal

## An Esoteric Play

## Made By: Arda

Answer: Box
Solution: This is a programming language based on Shakespearean plays. Every adjective is a factor 2. Every character can hold a numerical value. Every speak your mind! converts the numerical value to the corresponding ascii value. This results in Box.

## Genius Tag

Made By: Matthias
Answer: Hal B
Solution: You have to look up the songs on Genius. The step here is that every song mentions the producer of the song. You have to count the letter in the line of the song where the producer is mentioned.

- Bighead: Ooh, Bi-Bighead on the beat
- Pi'erre Bourne: YO, Pi'erre, you wanna come out here?
- Take a Daytrip: D-D-Daytrip took it to ten (Hey)
- Ronny J: ROnny J, Listen up
- 
- Kenny Beats: Woah Kenny
- Buddah bless: Buddah bless this beat


## Some Overlap

Made By: Arda
Answer: Vleugel
Solution: All the tombstones describe real people. However, the names on the tombstones are not real. You have to find the real person and then look at which letter overlaps in both names (same position as well).

- Isoroku Yamamoto -> T
- Clovis I-> O
- Theodore Roosevelt ->V
- Leonidas -> L
- Tiberius -> E
- Hatshepsut -> U
- Caligula -> G
- Leon Trotsky -> E
- Kublai Khan -> L


## A Dangerous Mix

Made By: Arda

Answer: Ravelijn
Solution: The recipe describes alchemy. The symbols at the bottom are alchemy symbols that represent elements. You have to convert all the measurements to cups. Afterward, you have to convert the elements to their atom number, add these together and find the resulting element.

is copper

is iron
Y
is mercury

- 1 US cup $=1$ cup -> 1 * $29=29$
- 0.25 US pint $=1 / 2$ cup $->0.5$ * $26=13$
- 2 US fluid ounces $=1 / 4$ cup $->0.25 * 80=20$
- 2 us gill $=1$ cup $->1^{*} 26=26$
- $29+13+20+26=88$-> Radium. The abbreviation of Radium is RA -> Ravelijn


## Sightings > 1965

Made By: Jochem
Answer: Windpark
Solution: The dates are all dates on which there were alleged UFO sightings. You have to divide these dates between dates that were before 1965 and dates that were after 1965. If you plot the dates on a map (using the countries in which the sightings happened) you get WP, which is windpark.

## Fourmilab

Made By: Arda
Answer: Meander
Solution: The title leads to a website where you can see the position of planets on specific dates. The gods all represent a planet. You have to use the semaphore flag signal system. Look up the dates and chart the position of these planets to find out which flag positions you need.

- Mercury = god of travel
- Venus = god of love
- Mars = god of war
- Jupiter = god of thunder
- Saturn = god of time
- Uranus = first god of the sky
- Neptune = god of the sea
- 03-08-1492 -> T
- 01-04-1791 -> O
- 04-10-2011 -> M
- 12-08-1819 -> E
- 25-05-1970 -> A
- 27-12-1831 -> N
- 06-10-1769 -> D
- 06-09-1620 -> E
- 21-11-1915 -> R

Bonus Puzzles

## Cake Puzzle

## Made By: Arda

Answer: Schuur
Solution: The rules link explains all the rules of the games on the cake. You have to fill the PBN with the numbers 1-9. Then you have to see which snake heads are on these squares and eat those letters in the order of the train puzzle. This results in the word THRONE -> Schuur.

## Potential

Made By: Arda
Answer: Sky
Solution: The RMP (Resting Membrane Potential) is -70 . The threshold is -40 . Thus, every neuron in the puzzle that gets an increase of +30 is fired. The neurons that do not fire, spell out SK -> Sky

