

final s2 BY RASMUS

Solution guide by Soph

Welcome Text

Welcome to the final weekly of this season. There will be 27 levels, most of which should be possible to solve. Just enter the solution in the url to get to the next level. Have fun!

Level 1

At first, the riddle spooks you with the promise of 27 levels, but with each level, the source code comments suggest it may not be the case (more on that later). Click that link!



At first sight, two things in the picture attract our attention: the colorful digits in the foreground, and the colored buildings in the background. After writing down the digits in the order represented by the buildings we get the following numbers:

157 160 150 145 154 151 141

After converting that from **octal** to **ASCII** character values, we get the word **ophelia**.

When we first visit the site we can lay our eyes upon a peculiar text. The html tags may suggest that the current formatting of the text is pretty important. If we google a part of it we can see that it's most likely encoded with **ISO-8859-1**. After changing that encoding to **Unicode** we get:



Which spells out bianca.

In the source, we can notice a *humorous* comment:

<!-- I procrastinated making this weekly for too long, running out of time now. I just hope there are no bugs and everything works as intended. -->

Now please tap this in: ESHIE5HSHSIHEHEE

This one is simple but crafty! The hint suggests the usage of **tap code**. But how do we apply it on a string of seemingly random characters? After converting the string *ESHIE5HSHSIHEHEE* to **morse code**, we notice that all the characters translate to *dots*:

After translating from tap code, we get the word cressida.

There's another *exhilarating* comment in the source code: <!-- I really should not have waited until the last day to start preparing this. I'll try to make the levels not too hard at least. -->

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We can see an image of a spreadsheet, underneath the image there's a **terminal command:**

\$ sudo localc rvratings.ods

Both of those suggest there's a **spreadsheet** file needed. After changing the file extension of the image, we get a spreadsheet. We can notice that the grid is 9x9 and they are all values from 1-9. At the bottom of the grid there are different **formulas** that depend on empty cells. It would seem we have to commit a seppuku sudoku. Solving the sudoku we gives us:

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

After filling the cells with those values, the formulas on the bottom spell out the word **desdemona**.

Fun fact: The sudoku actually has *two solutions,* the second one has the fields highlighted in red switched. The string spelled out by the formulas, 1VvgemZna isn't accepted as a solution (smh ras).

There's another *hilarious* comment in the source:

<!-- It's getting really late, I can see the moon already and I'm only on level 4. -->

Level 5

A blank page welcomes us. Ctrl + UwU.

<!-- Oh god, there's no time to finish this. Just go to the next level: /finals2/juliet --> Easy as that.

Blank page again. You know what to do.

<!-- Ok, I'll try to make another level here later, gotta get the last one done now.

Hints to include:

- * 3hZCz8wJ
- * The number 8

* Some kind of hint for the site? Probably not needed but something might look off. -->

What site might it be? **Pastebin**. Go to:

https://pastebin.com/3hZCz8wJ

Hmm something's definitely off about this pastebin... It was created in 2015?? How can it be a part of the riddle? Let's investigate the position on line 8:

858ed88018252d9734f199ebe59b0a46

What can it be? As little as googling brings us to an answer, it's the portia word hashed with an **md5** algorithm.

Placeholders

All the levels from 7 to 26 are placeholders. They all say the same thing in the source:

<!-- If I have time I'll finish this later, otherwise people will just have to skip to the last level. -->

So this is what all the foreshadowing meant! Looks like the riddle is not finished :C But don't fret, rasmus turned that into a unique and fun puzzle!

Let's look at the level urls we know of so far:

- 1. cordelia
- 2. ophelia
- 3. bianca
- 4. cressida
- 5. desdemona
- 6. juliet
- 7. portia

Googling them, we discover they are the moons of **Uranus** in order. Checking the last moon, **ferdinand**, gives us the url of the last level.

The last page contains the following:

JUst a little closer. 16 20 8 3 13 5 27 2 9 6

And a source code comment:

<!-- I guess people can just use wikipedia to get here straight from the first level...

Oh well, that's ok.

This is the last level, just enter the solution on the site. -->

But what's the solution? Why is **JU** capitalized that way? It's because now we need the moons of **JUpiter**. As the comment suggests, let's use wikipedia.

16	Dia
20	Euporie
8	Callisto
3	Amalthea
13	Pandia
5	lo
27	Thyone
2	Adrastea
9	Themisto
6	Europa

The first letters of the moons spell out the final solution: decapitate.

Fun fact 2:

It seems someone broke the riddle by changing the wikipedia article in the middle of the week (4th November was wednesday):



The moon number 26 Thyone was changed to 26 Euanthe.

