



# The Xmas Puzzles 2025

*Devised and created by*

**Dr Tim Paulden**  
**(TXP Quizmaster)**

*in association with*

**chalkdust**

A magazine for the  
mathematically curious

Teams and solo solvers can submit their solutions until  
**20:00 GMT on Sunday 18 January 2026** by following the  
detailed instructions given on the next page of this PDF  
(and on the website [www.TheXmasPuzzles.com](http://www.TheXmasPuzzles.com)).

**Over £1,000 in charity donations up for grabs!**

The top four entries will win a donation of **£200** (1st) / **£150**  
(2nd) / **£120** (3rd) / **£90** (4th) to a charity or good cause  
nominated by the team / solver, and those who solve the meta-  
puzzle or score 50%+ will also win a donation (see next page).

## INSTRUCTIONS AND SOLVING TIPS

- **Many (but not all) of the puzzles have a Christmas connection.** The puzzles are not necessarily ordered by difficulty, and the number of points available for each one is shown in brackets. **The solutions for Puzzles 1 to 13 feed into the *meta-puzzle*,** which appears before Puzzle 1 for visibility.
- **You can use any resources you wish to help solve the puzzles, including search engines, computer programs, books, and so on.** Some of the puzzles contain clues that may help you to crack the others. To keep the puzzles fun for everyone, **solvers are kindly asked not to post any solutions online until after the entry deadline has passed** – thank you! The official solutions will be published at the end of January.
- **Solutions must be briefly explained to receive full credit.** You may also find several of the puzzle titles to be helpful – **for full credit, these titles must also be explained.** And if you spot any interesting links between the puzzles, **be sure to note these connections in your solutions.**
- **Any corrections or other announcements between now and the deadline will appear on the website [www.TheXmasPuzzles.com](http://www.TheXmasPuzzles.com) under the “Updates” tab, so please check back from time to time.** If you encounter any technical issues or spot an error, please get in touch by email at [TheXmasPuzzles@gmail.com](mailto:TheXmasPuzzles@gmail.com) (or [timpaulden@gmail.com](mailto:timpaulden@gmail.com)). We are unable to provide any hints – sorry!
- **Submitting your solutions:** Entry is free and open to all, and entries are welcomed both from solo solvers and teams comprising up to five people. **Solutions should be emailed to [TheXmasPuzzles@gmail.com](mailto:TheXmasPuzzles@gmail.com), to arrive by 20:00 GMT on Sunday 18 January 2026.** Please remember to mention your nominated charity / good cause. Receipt of entry will be confirmed via email and at [www.TheXmasPuzzles.com](http://www.TheXmasPuzzles.com) under the “Entries” tab (showing the timestamp and initials of the submitter).
- **The top four entries received will win a donation of £200 (1st) / £150 (2nd) / £120 (3rd) / £90 (4th) to a charity or good cause of the team’s / solver’s choice.** A further **£200 in donations** will be split between charities nominated by **those who completely solve the meta-puzzle** (including the top four finishers), and another **£300 in donations** will be split between charities nominated by **those scoring 50% or more** (excluding the top four finishers). The Quizmaster’s decision is final. Good luck!

**Dedicated to the memory of  
Robin Williams  
(1987 – 2025)**

*A brilliant mathematician,  
footballer, colleague, and friend*

**SPOTY: “Remembering the sports stars we lost in 2025”**  
**<https://www.bbc.co.uk/sport/articles/cn0ky511zk9o>**

# List of puzzles

**Meta-puzzle [6 points]**

**Puzzle 1: THE ONE AND ONLY [12 points]**

**Puzzle 2: TAYLOR SERIES [5 points]**

**Puzzle 3: MODERN ART [9 points]**

**Puzzle 4: PBQGKGIWPF [6 points]**

**Puzzle 5: DIVERGENT SERIES™ [5 points]**

**Puzzle 6: SIX-SEVEN! [7 points]**

**Puzzle 7: ARGYLE PLAYS ... IN LINCOLN AT XMAS [4 points]**

**Puzzle 8: LONG TIME, NO SEE [5 points]**

**Puzzle 9: RUNNING UP THAT HILL [9 points]**

**Puzzle 10: CIRCLE OF LIFE [10 points]**

**Puzzle 11: GÖRDLE [7 points]**

**Puzzle 12: ... A.P.T. (2025) [9 points]**

**Puzzle 13: W.I.T.S. [6 points]**

**Total points available: 100**

### Meta-puzzle [6 points]

*This meta-puzzle has been placed at the beginning for visibility.*

Write your solutions to the thirteen puzzles into the grid below, then anagram the thirteen gold letters to obtain the meta-solution.

This meta-solution features briefly, in its traditional form, in one of the solutions – which one? (Its less-traditional form shares a cosy connection with another solution – which one?)

If the meta-solution is interpreted as a film, what location name does it share (unfortunately) with a horror film starring an actor whose surname appears in the grid?

Finally, which four solutions can be combined to create an appropriate name for this year's competition?

[illegible]

## Puzzle 1: THE ONE AND ONLY [12 points]

*(The solution has 19 letters.)*

Identify the items below. What feature do all nineteen of them share, and together what do they reveal?

*(Note: The bracketed numbers are the lengths of the words in each item.)*

- (a) Iconic event venue located 800m from the White House [6,1,6,10]
- (b) Finnish designer of a 1980s film poster that looks older, with the letters F, A, I, and B appearing in orange [5,8]
- (c) Physicist, psychologist, and psychical researcher who specialised in colour perception, and gave his name to a unit [7,1,7]
- (d) Illuminating landmark commonly known as "Bug Light" [6,4,5,3,5]
- (e) Beloved 1915 playhouse whose logo features two intertwined letters and two golden masks [2,8,7]
- (f) Widely panned 2012 Australian reality show [5,4,6]
- (g) Writer of a poem whose title has the initial letters DITMAPITF [8,5]
- (h) Place where Shearer and Rodney both won in February 2025 [7,10]
- (i) European Athletics Championships silver medallist whose surname sounds festive [5,12]
- (j) Subset comprising numbers 6, 32, 38, 51, 102, 130, and 143 [11,6]
- (k) Name shared by educational establishments in Donnington, Taunton, and Thornbury [3,6,6]
- (l) Nigerian film starring GN as V and OE as I [4,2,9]
- (m) Saxophonist and producer who contributed to *Let's Stay Together*, *Son of a Preacher Man*, *Respect*, and *Mustang Sally* [7,8]
- (n) Cold, hard title of the 73rd and final episode [3,4,6]
- (o) Austin Roberts song whose lyrics mention a clown [10,5,4,2]
- (p) Minister who stated back in September that Spain should withdraw from Eurovision 2026 if Israel participates [6,7]
- (q) The maxim of all and none [6,2,4,2,5]
- (r) Name of the tournament that last took place in Delaware in 1993, or in Italy in 1999 [9,12]
- (s) Actor appearing in both *Santa with Muscles* and *Mrs Doubtfire* [7,6]

## Puzzle 2: TAYLOR SERIES [5 points]

*(The solution has 11 letters.)*

Identify the creator of the items that contain the snippets below, which are all numerical in nature. What eleven-letter name – a creature who was also “raised on a farm” – do they encode? *(Note: This name is the answer contributed to the meta-puzzle.)*

What special date arose exactly *S* years after the famous incident involving this creature (where *S* is an integer appearing several times – both directly and indirectly – within these puzzles)? And which Grammy-winning actress – who, in 2023, celebrated beating the above creator “for 10 minutes” – might have enjoyed one of the creator’s numerical works on this special date?

*... ate \_\_\_ bars ...*

*... since \_\_\_ hours ...*

*... this \_\_\_ ends ...*

*... next \_\_\_ years ...*

*... photos \_\_\_ cents ...*

*... you \_\_\_ seconds ...*

*... last \_\_\_ months ...*

*... I'm \_\_\_ years ...*

*... hand \_\_\_ times ...*

*... but \_\_\_ seconds ...*

*... still \_\_\_ inside ...*

### **Puzzle 3: MODERN ART [9 points]**

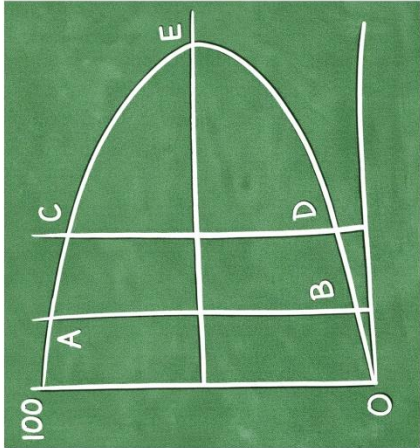
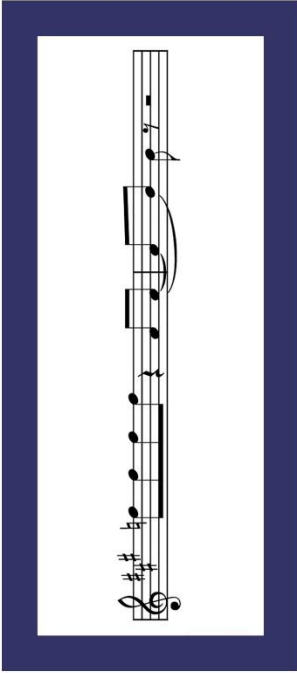
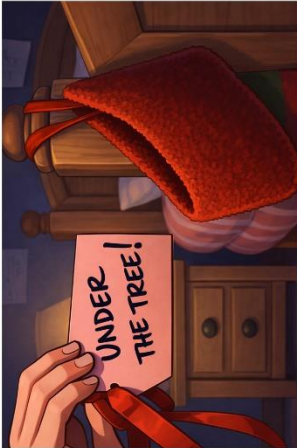
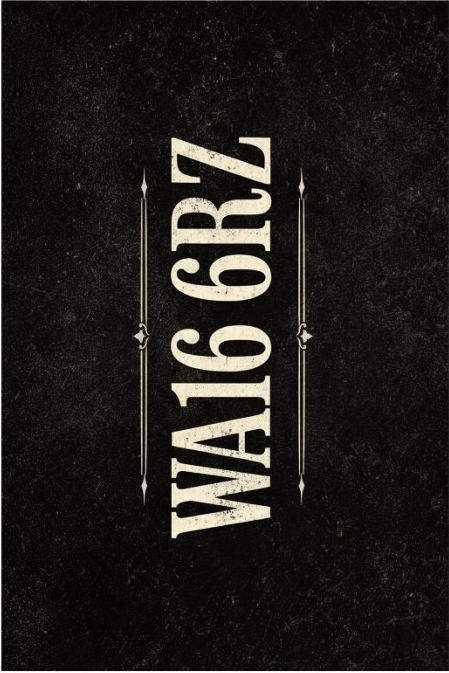
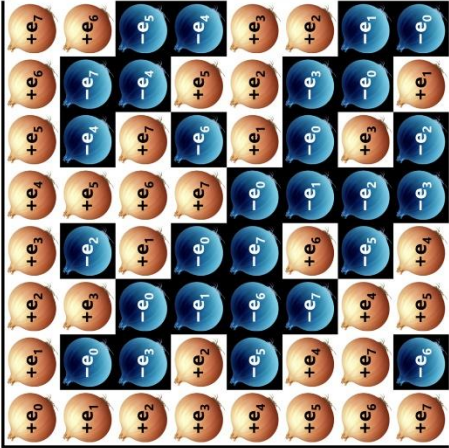
*(The solution has 6 letters.)*

What name connects the nine images in the gallery shown on the next page?  
(In each case, the connection should be identified.)

Which animal is widely regarded as the origin of this name, and whereabouts does one appear within this document?

Finally, which individual referenced in one of the images now runs a real-life art gallery, and why might they feel a connection (albeit in reverse) with the final sentence of Puzzle 2?





## Puzzle 4: PBQGKGIWPF [6 points]

*By Matthew Scroggs and Tim Paulden*

*(The solution has 4 letters.)*

RCDQ:

- GCHFE BR KIDEI'K DCDG WGCDQGGW
- RCYG ZBWQK RWBU EFG KCL-ZBWQ ECETG BR I XS  
PFWCKEUIK DXUOGW BDG
- EZB BR EFG EFWGG ZCKG UGD'K HCREK
- GTGYGD HCREK RWBU EFG EZGTYG QIMK BR PFWCKEUIK

A	T	K	F	G	D	K	X	K	Q	W	B	T
L	I	Q	F	E	I	R	J	C	J	G	W	K
J	Q	C	J	J	I	W	E	W	C	Q	H	G
B	C	I	T	K	G	I	I	E	H	F	G	R
E	G	U	B	P	C	D	Q	F	W	W	M	U
F	K	W	Q	K	P	S	E	I	I	T	G	E
G	E	G	X	G	Y	C	L	G	D	W	K	B
W	R	E	W	F	G	D	U	C	Q	P	W	O
G	V	X	C	E	G	P	P	K	U	K	G	C
K	K	C	T	C	S	G	D	X	I	H	F	W
O	T	C	E	N	G	D	H	Z	J	D	K	Q
B	W	Q	D	B	G	K	G	G	H	C	I	K
Q	B	Y	G	K	W	G	U	U	X	W	Q	K



## Puzzle 5: DIVERGENT SERIES™ [5 points]

*(The solution has 11 letters.)*



## Puzzle 6: SIX-SEVEN! [7 points]

*(The solution has 6 letters.)*



The two-player game *Six–Seven!* starts with two piles of 6 and 7 coins – an integer duo that appears to have infiltrated modern culture with all the elegance of a brick through a window. Apologies if their appearance here sets anyone off.

The players alternate turns. On their turn, the active player rolls a respectable six-sided die. If the roll is  $R$ , they must remove between 1 and  $R$  coins (or all remaining coins, if fewer) from a single chosen pile. (Thus, a roll of 4 permits the removal of 1, 2, 3, or 4 coins.) The player who takes the final coin is the loser – or, to quote the official rulebook, “*gets the L*”.

Under the heroic assumption of optimal play by both sides, determine the probability that Player 1 wins, expressed as a fraction in its lowest terms.

*You should find that the numerator and denominator of the fraction each have four digits. To obtain the answer word for this puzzle, add together all eight digits to obtain an integer between 3 and 71, then read off the associated word on the following page.*

<b>3: CANDLE</b>	<b>26: BRIGHT</b>	<b>49: GLORIA</b>
<b>4: GLOVES</b>	<b>27: WISHES</b>	<b>50: WREATH</b>
<b>5: DASHER</b>	<b>28: SACRED</b>	<b>51: HERALD</b>
<b>6: UNWRAP</b>	<b>29: DANCER</b>	<b>52: SPRUCE</b>
<b>7: WINTER</b>	<b>30: FROSTY</b>	<b>53: COOKIE</b>
<b>8: CAROLS</b>	<b>31: CHURCH</b>	<b>54: GOSPEL</b>
<b>9: GRINCH</b>	<b>32: SLEDGE</b>	<b>55: BAUBLE</b>
<b>10: WONDER</b>	<b>33: BAKING</b>	<b>56: EGGNOG</b>
<b>11: STABLE</b>	<b>34: DONNER</b>	<b>57: FROZEN</b>
<b>12: JOSEPH</b>	<b>35: GIFTED</b>	<b>58: HELPER</b>
<b>13: HEARTH</b>	<b>36: TOASTY</b>	<b>59: GINGER</b>
<b>14: ICICLE</b>	<b>37: JOYFUL</b>	<b>60: CHALET</b>
<b>15: NUTMEG</b>	<b>38: HUMBUG</b>	<b>61: WARMTH</b>
<b>16: TINSEL</b>	<b>39: CLOVES</b>	<b>62: GIVING</b>
<b>17: SPIRIT</b>	<b>40: MITTEN</b>	<b>63: BRANDY</b>
<b>18: TURKEY</b>	<b>41: SEASON</b>	<b>64: MANGER</b>
<b>19: ANGELS</b>	<b>42: CARING</b>	<b>65: THANKS</b>
<b>20: RIBBON</b>	<b>43: LIGHTS</b>	<b>66: INFANT</b>
<b>21: SLEIGH</b>	<b>44: JUMPER</b>	<b>67: PRAYER</b>
<b>22: JINGLE</b>	<b>45: SMILES</b>	<b>68: KISSES</b>
<b>23: FAMILY</b>	<b>46: MULLED</b>	<b>69: ADVENT</b>
<b>24: GROTTTO</b>	<b>47: CHEERS</b>	<b>70: CHILLY</b>
<b>25: CHIMES</b>	<b>48: DINNER</b>	<b>71: SPICES</b>

## Puzzle 7: ARGYLE PLAYS ... IN LINCOLN AT XMAS [4 points]

*(The solution has 6 letters.)*

In which neighbourhood are we celebrating Christmastime if the individuals illustrated below make a very brief appearance on the screen (along with more than a dozen others)?

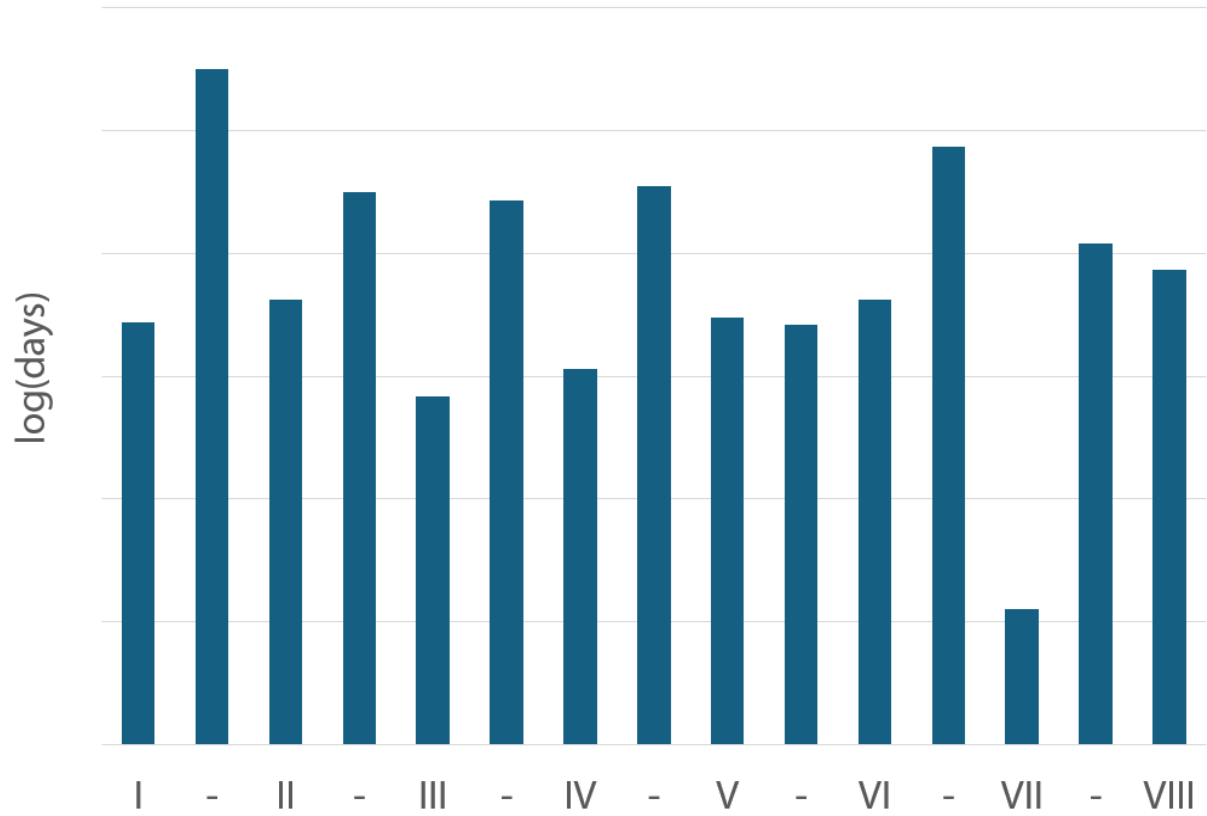
*(Note: The first name of the person immediately before Joshua is a piece of mathematical terminology.)*

What is the meaning of the cryptic puzzle title, and how are the name "John" and the string "IE49963" relevant?



## Puzzle 8: LONG TIME, NO SEE [5 points]

*(The solution has 5 letters.)*





## Puzzle 9: RUNNING UP THAT HILL [9 points]

*(The solution has 6 letters.)*



The key to cracking the code above is a seasonal character...

...whose coolness was questioned by a man looking to buy a winter garment (in 1967)

...whose voice was provided by a man with an exceptionally appropriate surname (in 1976 and 1979)

...whose namesake starred (from 1992) alongside his real-life brother, who has an apt surname for the current puzzle and a first name that echoes an earlier puzzle

Finally, which of the individuals mentioned above was looking for the solution to the puzzle back in the 1990s?



## Puzzle 10: CIRCLE OF LIFE [10 points]

(The solution has 9 letters.)

On Boxing Day, Phil and Rita settle down to watch television, having exhausted all other civilised forms of activity. They encounter a 'Christmas' film involving a Ferris wheel which announces its intention to be emotionally devastating and makes good on the promise. They are both sure they have seen it before.

Switching channel, they stumble upon *The 0.0001% Club* – a puzzle gameshow so fiendish that it makes *Only Connect* look like daytime TV for toddlers. It's the final jackpot round, and the assembled boffins are told they have exactly 30 minutes to crack the puzzle below and find the secret 9-letter solution (with the aid of their trusty computers, and any online tools they wish). They all fail – spectacularly, and in high definition. Can you do better?



(Note: The 9-letter solution to the puzzle shown above is the answer contributed to the meta-puzzle.)

Finally...

- Identify another pattern (ultimately leading to one of those above) that not only echoes another problem proposed by the same mind, but also evokes Christmas.
- Drawing the theme to a close, identify the obscured extract below (from a brilliant play by one recently departed) which mentions one of the above patterns. Which individual appearing in an earlier puzzle's solution was presumably an expert on this substance, given his name?

•h•n •o• t•r •o•r •i•e •u•d•n•, •e•t•m•s, •h•  
•p•o•f•l •f •a• •p•e•d• •t•e•f •o•n• •a•i•g •e• •r•i•s  
•i•e •h• •i•t•r• •f • •e•e•r •n •y •s•r•n•m•c•l •t•a•.  
•u• •f •o• •t•r •a•k•a•d, •h• •a• •i•l •o• •o•e  
•o•e•h•r •g•i•. •n•e•d, •h• •u•d•n• •o•s •o• •o•i•e  
•n• •o•t•n•e• •o •u•n •i•k •u•t •s •e•o•e. •o •o•  
•h•n• •h•s •s •d•?

(Note: The visible letters are those that are *even in location*.)

**Puzzle 11: GÖRDLE [7 points]**

*(The solution has 8 letters.)*

9276527951595457880440925 69465213142391393591561889 64843750	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>
1664568498977279037736988 6416302220358505473201745 5100144007295112000	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>
29294339111315735282856346 05331236989042323897734215 13477159167664364370940000 000000000	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>
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= ?

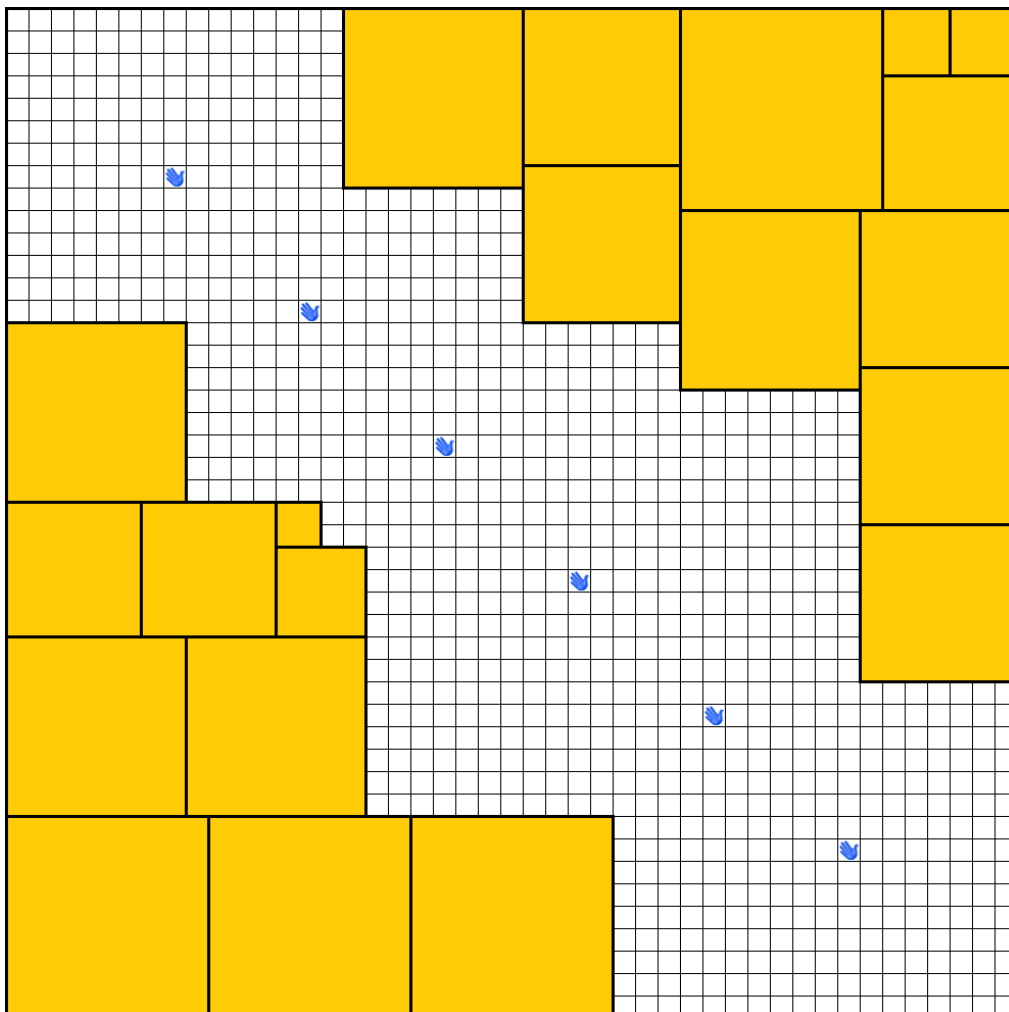
## Puzzle 12: ... A.P.T. (2025) [9 points]

(The solution has 6 letters.)

It's Christmastime at the holiday camp, and the events board is filling up as quickly as the apartments. Today's schedule includes a morning stroll to see the Punch & Judy show on the promenade, a festive afternoon sing-along, and tucked between them, an invitation to "*visit the music hall for today's puzzle*".

Upon entering the hall, you see that a  $45 \times 45$  grid has been laid out across a table, containing a selection of carefully placed squares (see diagram below). To complete the puzzle, the remaining squares must be added so that the final arrangement comprises **one  $1 \times 1$  square, two  $2 \times 2$  squares, three  $3 \times 3$  squares, ..., nine  $9 \times 9$  squares**, all fitting in the grid with no overlaps or gaps.

Can you complete the grid, and identify the mathematical relationship it exemplifies? Finally, what is revealed by the six cells marked with hands – and which associated character might have felt a special affinity for this puzzle?



### **Puzzle 13: W.I.T.S. [6 points]**

*(The solution has 8 letters.)*

The values shown below are the 1000th, 2000th, 3000th, ..., 8000th terms of a mathematical sequence with a festive flavour – but with an extra digit inserted into each number.

Identify the original sequence. What do the eight extra digits give you?

**896068161**

**4323275793**

**10718244581**

**21041844233**

**34651654733**

**51747300337**

**72863525853**

**97631567493**

*(Hint: The first three terms in the original sequence are all 2-digit integers – one of them being S, the number mentioned in Puzzle 2 – and the next six terms are all 3-digit integers.)*