

# IMO 2025 PUZZLE HUNT

## INTRODUCTIONS



Dear IMO 2025 Contestant,

Welcome to the IMO 2025 Puzzle Hunt! Now that you have finished with the contest problems, it is time to relax... by doing some puzzles!

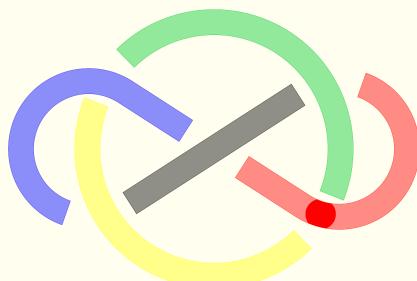
- The IMO 2025 Puzzle Hunt comprises eight puzzles, with one of the puzzles called the META-PUZZLE.
- To be eligible for the prizes, you are encouraged to work in a team that includes up to six people, who should all be IMO 2025 contestants. Teams can include IMO 2025 contestants from different countries – in fact, that is encouraged!
- If you have never done a “puzzle hunt” before, then that’s fine and we encourage you to give this one a go.
- The answer to each of the eight puzzles is either one word or a two-word phrase. Seven puzzles of the puzzles are independent, but the meta-puzzle requires the answers to the other seven puzzles.
- Some puzzles require being able to identify and distinguish different colours.
- Nominate a captain from your team to go to the website

<https://puzzlehunt.imo2025.au/>

to check your answers for each of the puzzles. The first teams to finish may be eligible for prizes!

- Hints for the puzzles will be available on the above website from 9:00AM on Friday (18 July). The puzzle hunt will end at 11:59PM on Friday (18 July).
- We want this hunt to be a special experience for IMO contestants. Please refrain from publicising this puzzle hunt online until after the conclusion of the IMO!
- This message is not a puzzle.

Kind regards,  
IMO 2025 Puzzle Hunt Team

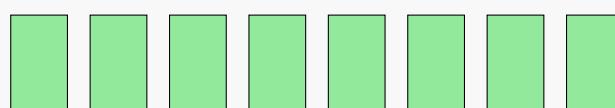


# IMO 2025 PUZZLE HUNT

## DECOMPOSITION



38	190	33	385	133
494	429	2470	357	19
38	78	2805	399	2261
2	39	34	3927	17
26	286	2431	7	119



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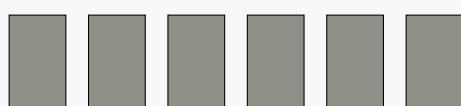
## SUDOK-IMO: A UNIQUE PERFORMANCE



A B C D E F G H I J K L M N O P Q R S T U V W X Y Z  
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26  
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z  
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26

P1	P2	P3	P4	P5	P6	Total	Award
	5		1	0			Bronze medal
3		2	0				
			4		2		
	3				0		Honourable mention
7	4			2			Silver medal
4		1	7				Gold medal
<b>26</b>	<b>15</b>	<b>15</b>	<b>20</b>	<b>20</b>	<b>17</b>	<b>113</b>	<b>G, S, B, HM</b>

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z  
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26  
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z  
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26



# IMO 2025 PUZZLE HUNT

## TRI-ALPHAMETIC



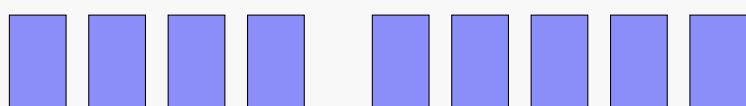
$$\begin{array}{r} \text{G E T} \\ + \text{H E L D} \\ \hline \text{H I G H} \end{array} \quad \begin{array}{r} \text{H I G H} \\ + \text{O I L} \\ \hline \text{L O G O} \end{array} \quad \begin{array}{r} \text{T O T A L} \\ + \text{G O A T} \\ \hline \text{M E L E E} \end{array}$$

$$\begin{array}{r} + \\ \hline \end{array} \quad \begin{array}{r} \square \square \square \square \\ \hline \square \square \square \square \end{array}$$

$$\begin{array}{r} + \\ \hline \end{array} \quad \begin{array}{r} \square \square \square \square \\ \hline \square \square \square \square \end{array}$$

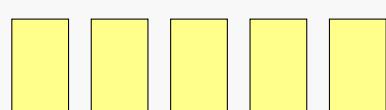
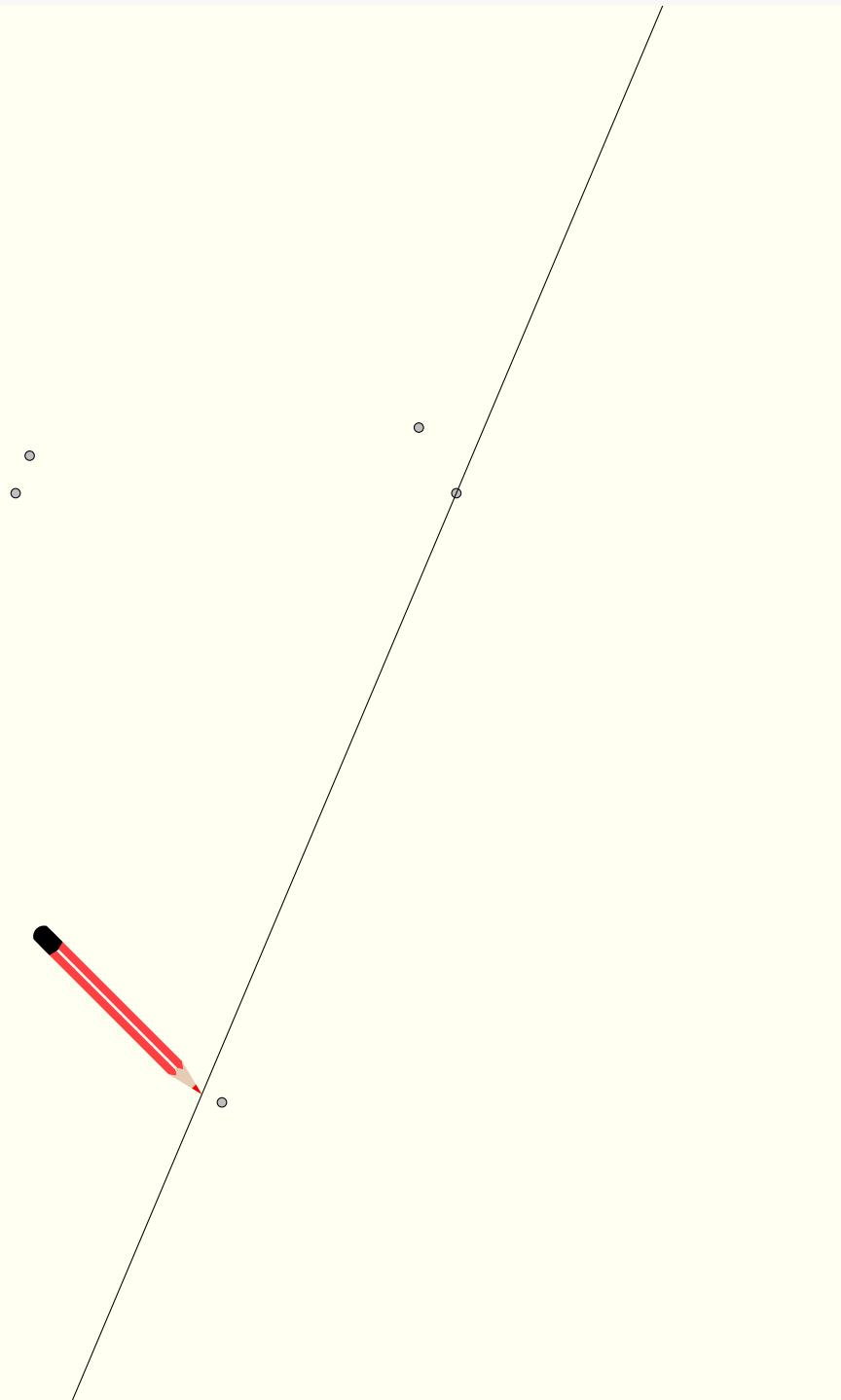
$$\begin{array}{r} + \\ \hline \end{array} \quad \begin{array}{r} \square \square \square \square \square \\ \hline \square \square \square \square \square \end{array}$$

8 3 7 2      5 1 2 0 7



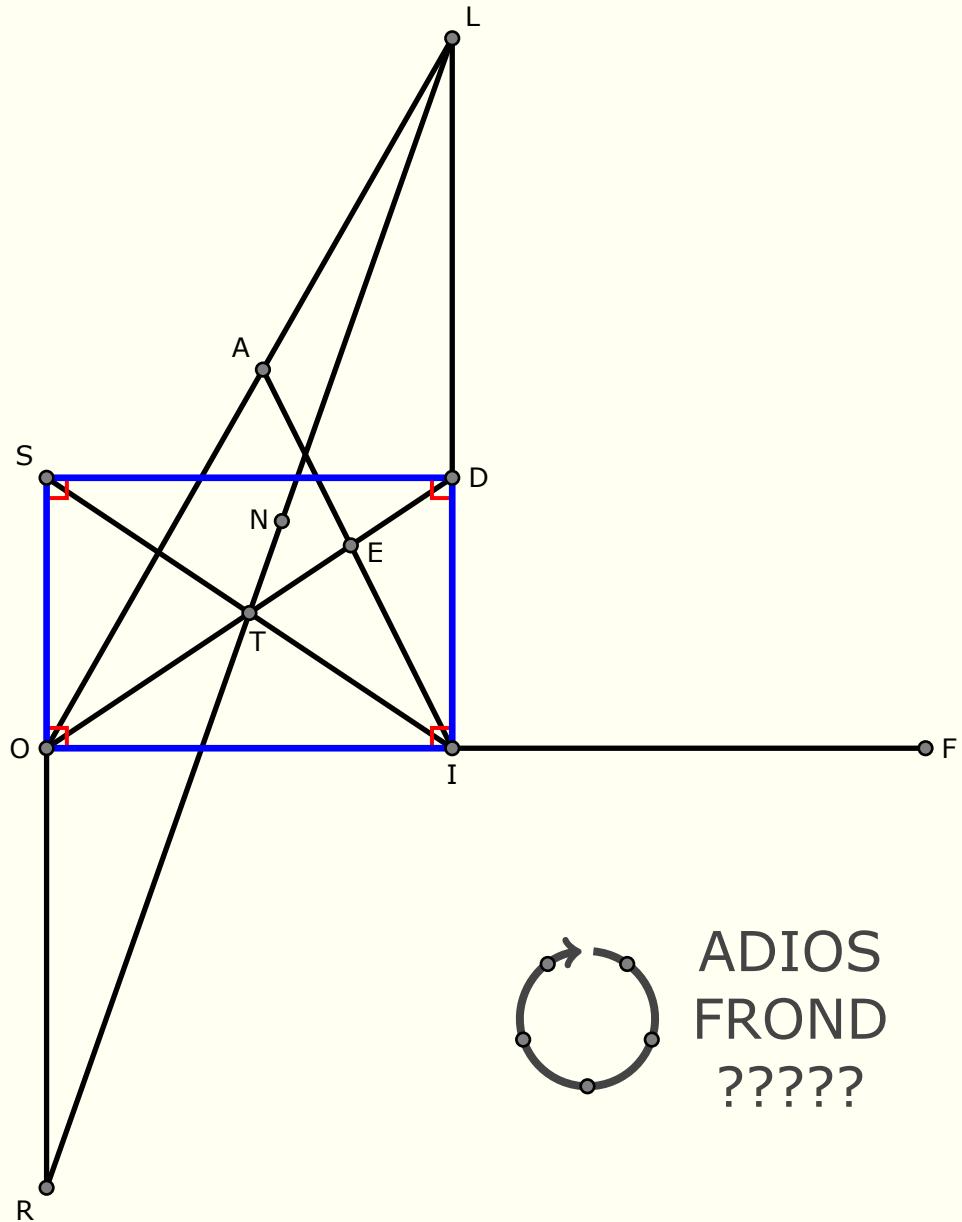
# IMO 2025 PUZZLE HUNT

MY WINDMILL HAS A PENCIL



# IMO 2025 PUZZLE HUNT

## CIRCULAR REASONING

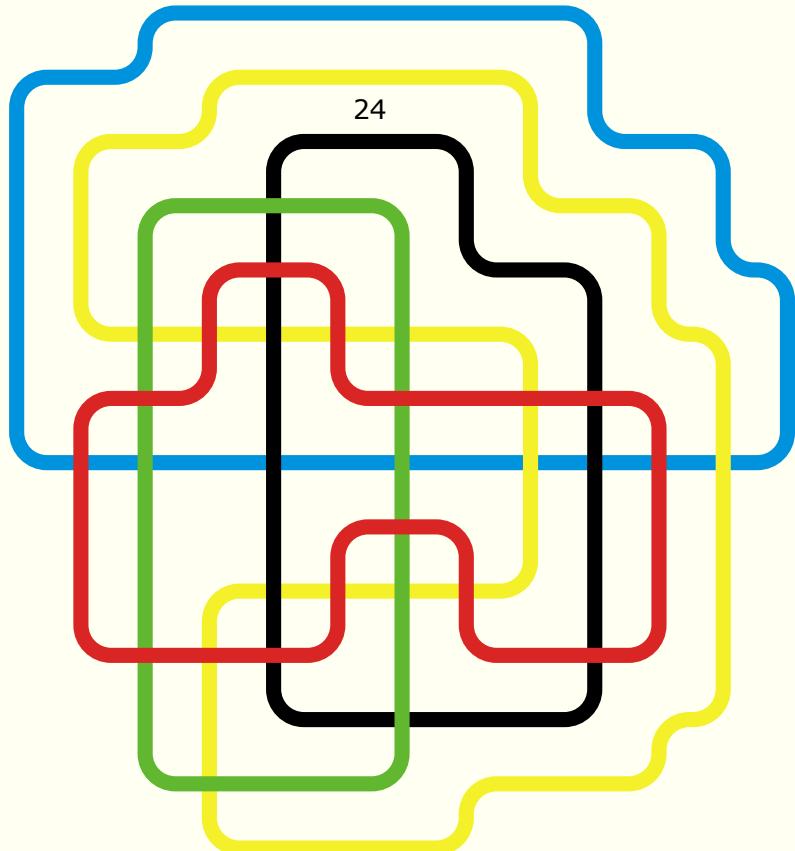


ADIOS  
FROND  
?????

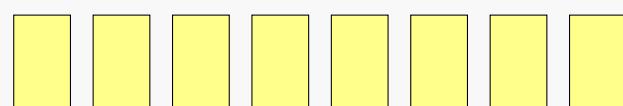


# IMO 2025 PUZZLE HUNT

## VENN-ARY ENCODING

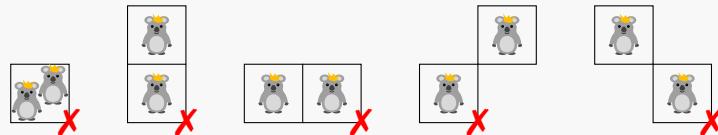


- |                                      |  |                                |  |                   |  |
|--------------------------------------|--|--------------------------------|--|-------------------|--|
| Blue                                 | Yellow                                       | Black                          | Green  | Red               |  |
| {2, 3, 4, 7, 11, 12, 18, 19, 20, 21} | {2, 3, 6, 7, 10, 11, 18, 19, 26, 27, 30, 31} | {6, 7, 14, 15, 18, 19, 20, 21} | {6, 7, 12, 13, 14, 15, 21, 22, 23, 28, 29, 30, 31} | {1, 2, 8, 16, 17} | {3, 9, 19, 21, 23, 25, 27, 28, 29, 30, 31}               |
|                                      |  |                                |  |                   | {2, 3, 4, 7, 11, 12, 18, 19, 20, 21, 26, 27, 30}         |
|                                      |  |                                |  |                   | {2, 3, 4, 5, 10, 11, 14, 18, 19, 20, 21, 22, 26, 27, 30} |

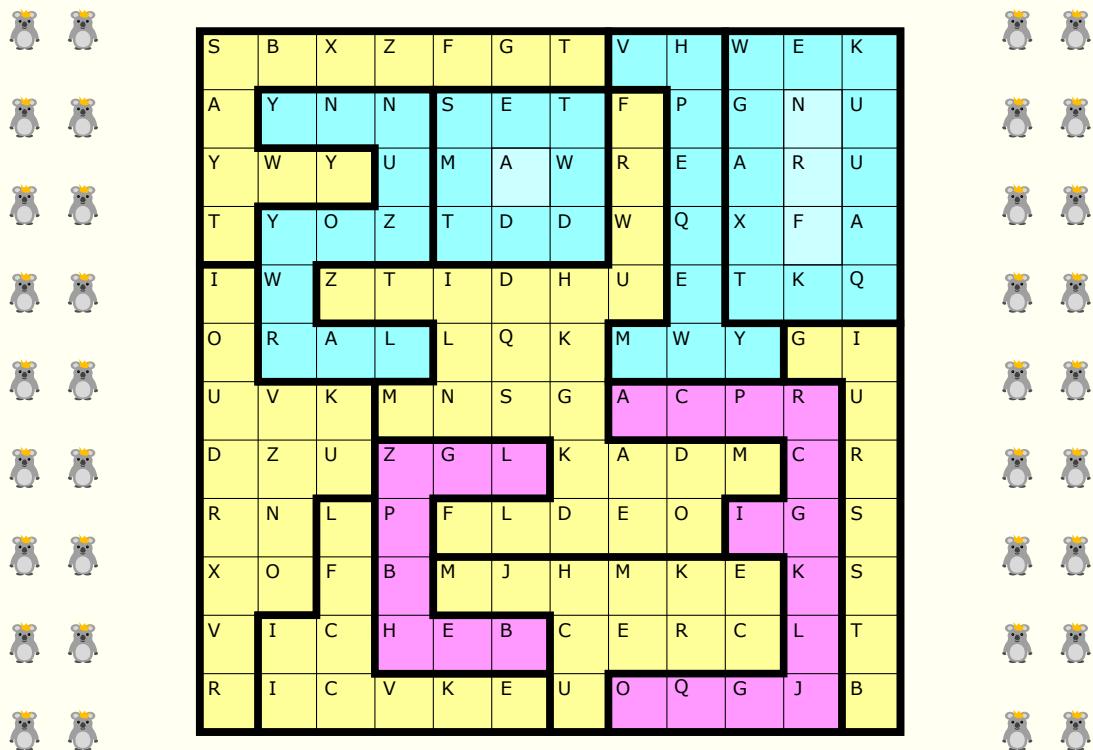
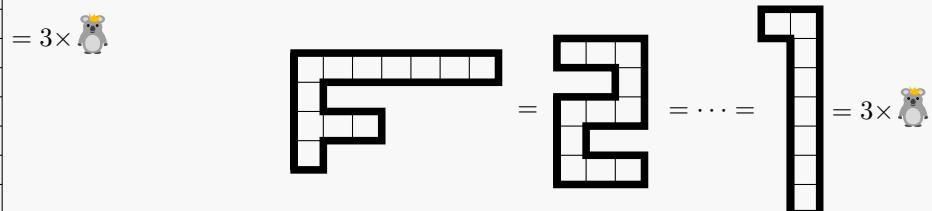


# IMO 2025 PUZZLE HUNT

## KOALA KINGS



$$\boxed{\quad \quad \quad \quad \quad} = 3 \times \text{koala}$$



# IMO 2025 PUZZLE HUNT

## META-PUZZLE: ANIMATION



This is the **META-PUZZLE**, which means that the answers to the other puzzles may be required to solve it. (This message is not part of the puzzle.)

