

# WORMRIDING (SOLUTION)

by Ong Kah Kien

The first step is to figure out how to use the earlier 3 meta answers in this final meta. Each of the meta answers has a number substring hidden in them, as summarized in the table below.

Houses	Colors	Metas	Meta answers	Hidden numbers
Atreides	Blue	Sonic Tank	AUDIO <b>NET</b>	<b>ONE</b>
Harkonnen	Red	Devastator	FALLOUT <b>WOE</b>	<b>TWO</b>
Ordos	Green	Deviator	HALF <b>OURS</b>	<b>FOUR</b>

The given grid in the final meta is, as described in the instructions, a standard [Snake logic puzzle](#). The only difference is just in terms of narrative that the given Start and End cells indicate where the sandworm travelled between in a snaking path (rather than the entire path being the body connecting the head and tail).

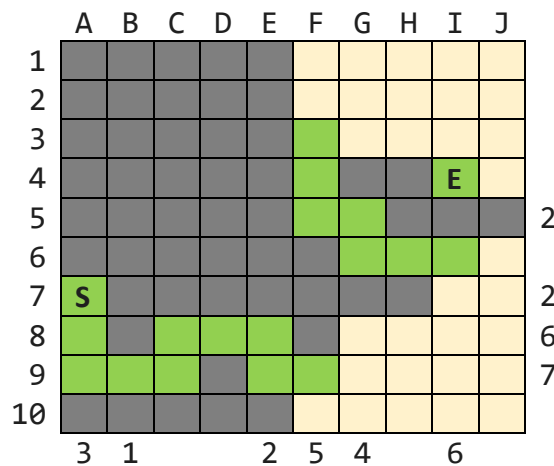
Along the borders of the grid, there are images which depict the crests of the 3 Houses, some singly, some stacked in pairs, and one with all three. These can be interpreted as the hidden number/s found in the meta answers for the corresponding House, with multiple crests representing the sum of all the respective hidden numbers. Thus these numbers/sums alongside the grid border in turn represent the number of worm path cells present in that respective row/column. Using these information from the earlier 3 meta answers, the logic puzzle can now be solved to figure out the path that the sandworm took within the grid.

The table on the following page details the sequential logic steps to infer the solution path, using the grid coordinate format shown in this initial grid below.

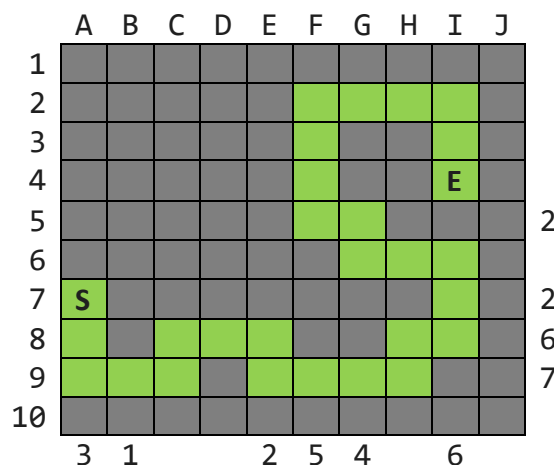
	A	B	C	D	E	F	G	H	I	J	
1											
2											
3											
4									E		
5											2
6											
7	S										2
8											6
9											7
10											
	3	1			2	5	4		6		

Logic steps	Inferences
1) There are 3 worm path cells in Col A including the Start cell. Since Col A is along the grid edge, these 3 cells must be adjacent, and with the Start cell at one end.	A1-A4, A10, B6-B8 are blank. Either A5-A6 or A8-A9 are worm path.
2) There is only 1 worm path cell in Col B implies it joins the path from Col A (to Col C), at either B5 or B9. Since Row 5 has only 2 worm path cells, this must be at B9 instead.	A5-A6 are blank. A8-A9, B9, C9 are worm path. B1-B8, B10, C8, C10 are blank.
3) Since Row 7 has only 2 worm path cells including the Start cell, the path that is now south of Row 7 and ends north of Row 7 could only have crossed Row 7 once through one cell. And the worm path cells present in Rows 8 and 9 need to be satisfied before that. So the worm did not cross via C7-E7.	C7-E7 are blank
4) Since Col E has only 2 worm path cells, the path that originates west of Col E and ends east of Col E could only have crossed Col E once via two adjacent cells. So E9 is one of these, with E8 or E10 being the other.  This means there are no other worm paths in E1-E6, which also seals off C1-C6 and D1-D6 as unreachable by the sandworm.	E9 is worm path, and either E8 or E10 is worm path. E1- E6, C1-C6, D1-D6 are blank.
5) If E10 is the worm path, then F8-J8 must all be worm path since there are 6 in Row 8. But this means F9 and J9 must be worm path as there are 7 in Row 9, and the sandworm is unable no longer able to cross Row 7. So E8 is the worm path instead.	E8 is worm path. E10, C10, D10 are blank.
6) If D9 is the worm path, then F8 and G8 continues this worm path. Row 9 still needs 2 worm path cells, so from G8 the path must cross Row 9 then cross back again. If the worm path crosses Row 9 at G9 and G10, then there is only 1 worm path cell left in Col G, and the worm cannot cross Col G and still finish in Col I. So this worm path could only possibly cross Row 9 via H8, H9 and H10, then continue via I10, J10, J9, J8, J7, J6, I6, H6, G6. Since Col I needs 6 worm path cells in total, I1-I3 are worm path, as is H1 and G1. But now we have a contradiction, as there are insufficient worm path cells in Cols F and G to connect this path together. So the worm path is by C8 and D8 instead, continuing to F9.	C8, D8, F9 are worm path. D9, F8 are blank.
7) Rows 8 and 9 still need 2 more worm path cells each, so the path can only cross Row 7 in Col I or J. So G6-I6 are worm path (cannot join to I4 finish cell before fulfilling Col F). Since Row 5 has only 2 worm path cells, the path that originates south of Row 5 and ends north of Row 5 could only have crossed Row 5 once via two adjacent cells F5-G5. So F3-F4 are worm path too.	G6-I6, F5-G5, F3-F4 are worm path. G4-H4, H5-J5, F6-F7. G7-H7 are blank.

Here is the inferred grid so far at this point of the logical steps:



Logic steps	Inferences
8) There are 4 possible ways for the two partial worm paths to connect.	
8a) If F10 is the worm path, it extends to G10-H10, then H9-I9 (to fulfil the 2 more worm path cells for Row 9), then I8-J8 (to fulfil the 2 more worm path cells for Row 8), crossing at J7-J6 to connect to the other partial worm path. So Col F already has the indicated 5 worm path cells, and the worm path must extend to G3, which then fulfils the 4 worm path cells in Col G. This leads to a contradiction, as the path can neither extend to G2 or H3. So F10 is not the worm path, which extends via G9.	F10 is blank. G9 is worm path
8b) If G10 is the worm path, then Col G will already have met the 4 worm path cells indicated, and there is no longer a way to fulfil the 5 worm path cells in Col F. This is a contradiction, and eliminates the two possible ways for to connect to the partial worm path via this route. So G10 is not the worm path.	G10 is blank. H9 is worm path.
8c) The only possibility left is H9 is worm path (fulfilling the 7 worm path cells in Row 9), then extends to H8-I8 (fulfilling the 6 worm path cells in Row 8), crossing at I7 to connect to the other partial worm path. So Col F still needs 1 more worm path cell at F2, similarly Col G still needs 1 more worm path cell at G2, extending to H2, while Col I still needs 2 more worm path cells at I2-I3, completing the path.	H8-I8, I7, F2, G2-H2, I2-I3 are worm path. All remaining cells are blank.



To use the solution path, extract the letters in the grid cells which the sandworm had avoided by turning. This is hinted in the flavortext “... use your maker hooks to steer the sandworm left and right to avoid the buildings along the way”. Furthermore, group these extracted letters into two sets based on whether the sandworm turned left or right. These two sets of extracted letters are shown in red and blue respectively in the grid below. When read in order of the sandworm path, they spell the answer to this final meta – **MESSIAH COMPLEX**. Perhaps not just the state of mind of your legendary savior, but also possibly a place where he could finally be found.

	A	B	C	D	E	F	G	H	I	J	
1						E					
2										X	
3											
4							H		E		
5					L				A		2
6						P					
7	S		C					M			2
8						O				I	6
9				E					S		7
10	M				S						
	3	1			2	5	4		6		

Constructor’s notes:

For this final meta, I thought of using the iconic sandworm riding by the Fremen as its key thematic element, which is apt for the concluding puzzle for this hunt. This theme lent well to a logic puzzle, which is also a good contrast from the three earlier House metas which used wordplays. The challenge was somehow using the meta answers, which were puns, in the final meta. Typically, the method employed would be using puns that also clued wordplay transformations. However, this approach was used recently in the meta for SGPH2024, so I wanted to avoid repeating this technique for the meta again. Since the final meta is a logic puzzle, I decided instead to hide its number clues as substrings inside the meta answers. This should hopefully not be too difficult to spot, making solving the logic puzzle the main task of this final meta, with the extraction method being a minor aha. Given that there were already three other metas, it would also be fair to make the final meta relatively straightforward, to reduce the likelihood of solvers being stuck at the conclusion. The extraction method of using the letters outside the path, as well as splitting into two sets, was thematic, as well as to avoid solvers seeing the partial extraction too easily and ending up not solving the full logic puzzle.