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WXYZ-Wing

From sudokuwiki.com, the puzzle solver's site

2		
	3	6
5		7

This is an extension of XYZ-Wing that uses four cells instead of three. Each possible value of the hinge cell results in a Z value in one of the cells in the WXYZ-Wing pattern, thus leaving no room for a Z on any cell all four can 'see'.

Its name derives from the four numbers W, X, Y and Z that are required in the hinge. The outer cells in the formation will be Wz, XZ and YZ, Z being the common number.

	WZ				
WX YZ	C	C	XZ	YZ	

WXYZ-Wing eg 1

In this example our four-value hinge is R3C3 marked in green. The three outlier cells, marked in orange each contain a 9 (our Z) plus one other number unique to themselves and the hinge. It's important that these extra numbers really are common only to the hinge and there are no pairs like 5/9 and 5/9 in two of the orange cells.

There is only one cell that all four of the WXYZ can see - R3C1, marked in yellow. It has a 9 which can be removed. No matter what number is the final solution in the hinge, one of the WXYZ must be a 9.

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

WXYZ-Wing eg 1: [Load Example](#) or : [From the Start](#)

2		
8		6
		3

	3	6
5		7

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