

A Line of Symmetry is not Guaranteed with a Jump Set Mirror

The web version of spirals need not have a line of symmetry, LoS, with jump sets as this $(n, r, J(J_1, J_2)) = (8, 4, (2, 1))$ 8-line mirror image shows. These numbers were chosen so that the start and end coincide at 0 so that a vertical LoS would happen, if a LoS were to occur at all. The image has no LoS. The table allows you to quickly understand how this image is created. The jump set pattern creates the vertex radius pattern (= prior vertex radius + jump from line above), radius declines by 0.25 with each line because $r = 4$, even past the center at the end of line 4. The last half of the lines (in grey

which creates the mirror) appear on the vertex radius half-way around the 8-gon, as noted in last line of the table.

Note. The *Excel* spirals file does not support jump sets.

Line # (mirror lines in grey)	1	2	3	4	5	6	7	8
Jump from prior vertex	2	1	2	1	2	1	2	1
End of line is on vertex radius*	2	3	5	6	0	1	3	4
Distance in from that vertex	0.25	0.5	0.75	1	1.25	1.5	1.75	2
Size of radius at point on image	0.75	0.5	0.25	0	-0.25	-0.5	-0.75	-1
Negative vertex radius appears as vertex radius + 4	4	5	7	8 = 0				
*It will not appear like the end of the line is on this radius when the <i>Distance in</i> is > 1.								

