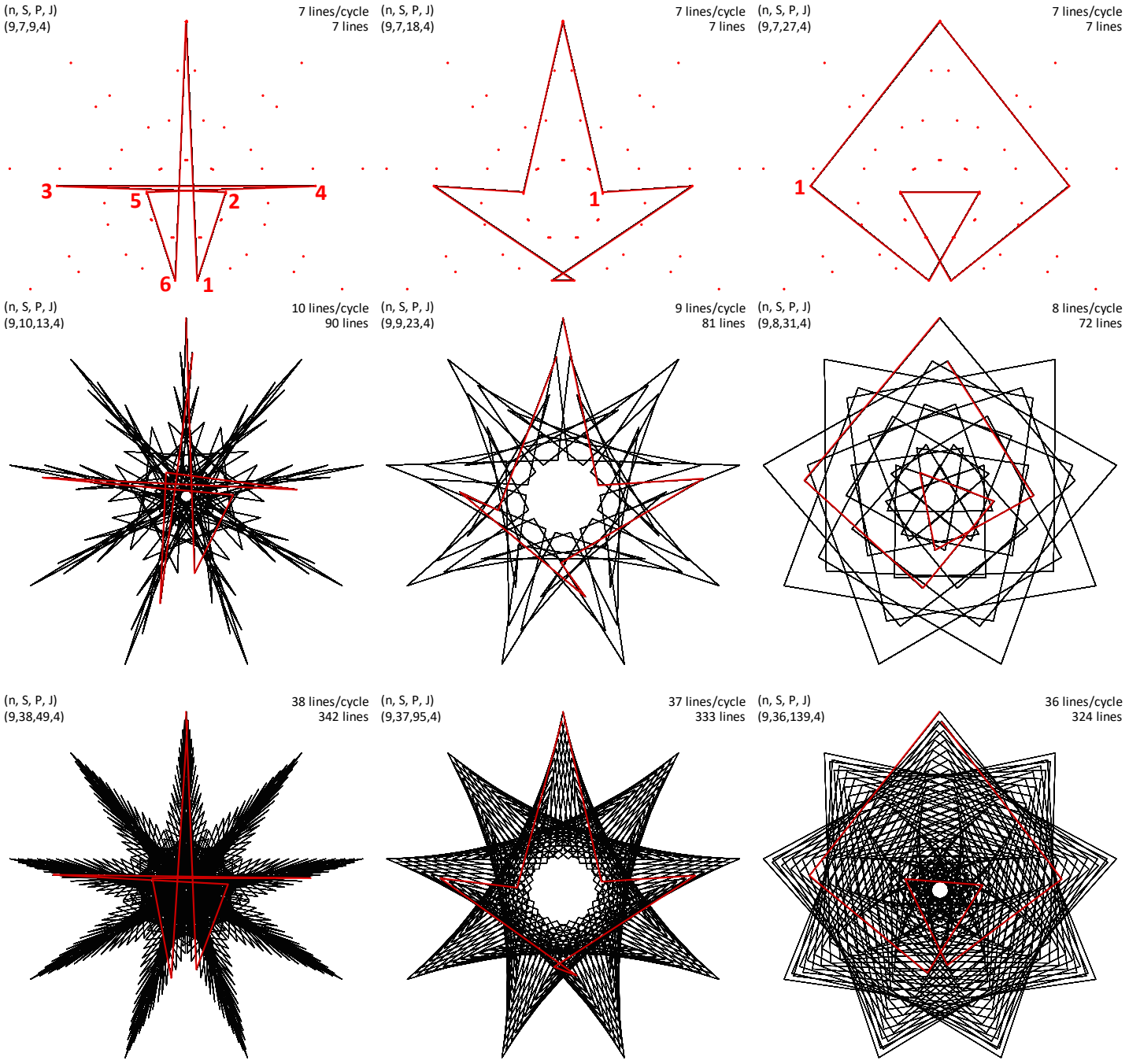
Single-Cycle Images use the same Subdivision Dots as *k* Varies

If ***S*** as a multiple of 7, then the 7th line will end at the top given *The 7-Line Generator Function* and the resulting image is a single cycle. As noted elsewhere, this does not depend on what multiple of 7 is under consideration for ***S***. As noted here, when ***J*** is "small" relative to ***n***/2, each ***J*** produces an irregular 7-gon or 7-gram and by varying ***k*** between 1 and 3 we cycle between 7-gons and 7-grams (we will simply call both 7,***a*** without the -gon or -gram or -star here and note that if ***a*** =1, we have a 7-gon). For example, with ***n*** = 9 and ***J*** = 1, we cycle between 7,1, 7,2, 7,3 as ***k*** = 1, 2, 3 but if ***n*** = 9 and ***J*** = 2, we cycle between 7,2, 7,3, 7,1 as ***k*** = 1, 2, 3. However, if ***J*** is "large" relative to ***n***/2, more complex images emerge. To continue with this ***n***, if ***J*** = 4, we obtain these 7-line images as ***k*** = 1, 2, and 3 with two single-step versions below.



Two points are worth noting. *First*, the SAME **subdivision dots** are used in the top three images, just in a different order, just like we saw with the irregular 7,***a***-stars discussed here. Using the upper left as the template, the middle uses endpoints **2**, **4**, **6**, **1**, **3**, **5**, **0** but the right uses **3**, **6**, **2**, **5**, **1**, **4**, **0** (the end of the first line is noted with a red **1** at middle and right). *Second*, although bottom row images have about four times the lines, they bear a strong resemblance to middle row images. The upper images are more twisted in the middle row because subdivisions are larger when ***S*** is smaller.