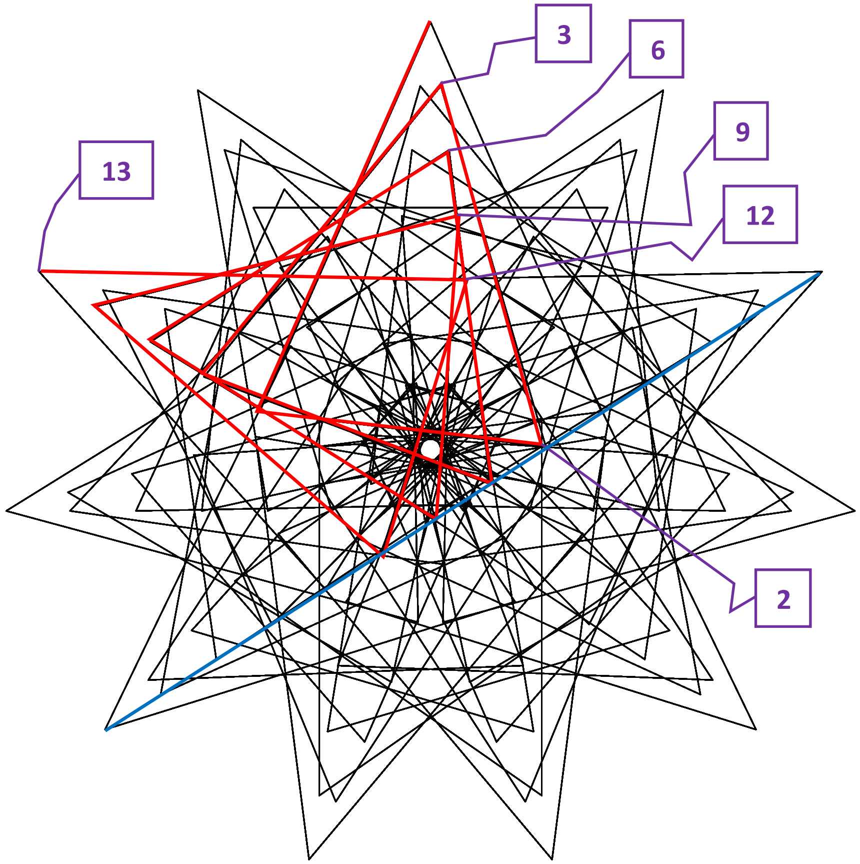
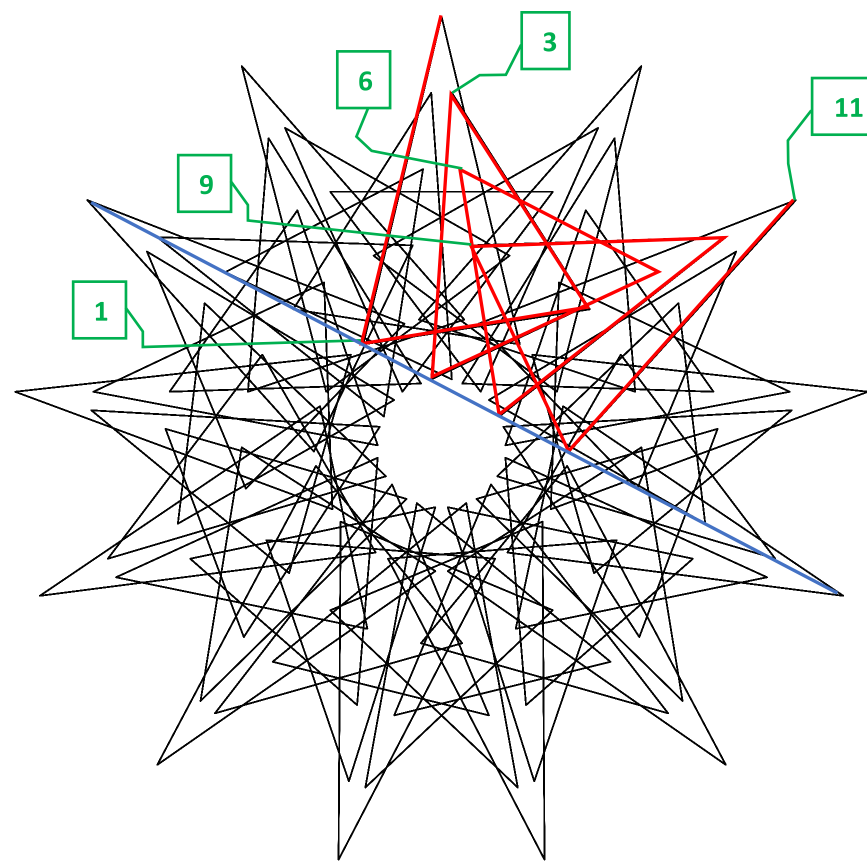
Shape-shifting Polygons: Comparing the first cycle from n = 11, S = **13** with n = 13, S = **11** for $P = (n*S+1)/3 = 48$; $J = (n-1)/2$.





The above images show the first S-length cycle in red (from polygonal vertex to polygonal vertex) for two 143-line images ($n*S$ = 143). The left image has 11 cycles of **13** and the right image has 13 cycles of **11**. Every third point is noted as is the cycle end. Both images are shape-shifting triangles. The left is a *counterclockwise-two-times-around image* (first cycle ends at vertex 9). The right is a *clockwise-two-times-around image* (first cycle ends at vertex 2).

Both images have "about" **4** "triangles" per cycle since S = **4***3 ± 1. An easy way to see the "four-ness" of the triangles in each cycle is to note that there are 4 triangle bottoms which are successive points on a single vertex frame line (**shown in blue**) in each image. To watch the triangles create each image, click *Toggle Drawing* after connecting to each link below:

<u>The left image bottoms</u> are on the 8th line of the vertex frame from **vertex 2 to vertex 7** (note: J = 5 and S = **13** here) with point **2**, 5/13 of the way from vertex 2 to vertex 7 (note: **2***48 = 96 = 7***13** + 5). https://www.playingwithpolygons.com?vertex=11&subdivisions=13&points=48&jumps=5

<u>The right image bottoms</u> are on the 5th line of the vertex frame from **vertex 11 to vertex 4** (note: J = 6 and S = **11** here) with point **1**, 4/11 of the way from vertex 11 to vertex 4 (note: **1***48 = 4***11** + 4). https://www.playingwithpolygons.com?vertex=13&subdivisions=11&points=48&jumps=6